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BEGINNINGS IN INDUSTRIAL EDUCATION

BEGINNINGS IN INDUSTRIAL EDUCATION

AND

OTHER EDUCATIONAL DISCUSSIONS

BY

PAUL H. HANUS

PROFESSOR OF THE HISTORY AND ART OF TEACHING IN HARVARD UNIVERSITY

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PREFACE

BECAUSE this book deals with some educational questions of contemporary importance, from the standpoint of experience, I hope it may interest the lay reader as well as students of Education and directors of educational affairs. It consists of two parts — first, a series of related discussions of an important step forward in vocational education, under state auspices; and, second, a group of essays dealing with questions in the field of general education.

About two years ago, the Governor of Massachusetts (Governor Guild), acting under a statute, appointed a Commission on Industrial Education, to carry on an active propaganda in the interest of industrial education throughout the state; and especially, in coöperation with municipalities, to found state-aided schools for the thorough instruction of boys and girls in the leading industries (including agriculture) of the commonwealth. Massachusetts thereby became the pioneer of public industrial education in this country.

Immediately after its appointment the commission inaugurated an active campaign to develop

public opinion in favor of the new kind of schools which the state had authorized. This campaign was carried on by public meetings, and by conferences with small groups of interested persons — representatives of local labor unions, and groups of manufacturers, sometimes of both — in various parts of Massachusetts. It fell to me, as chairman of the commission, to take general charge of most of the smaller conferences, and to address many of the larger meetings. Some of the addresses are here reproduced in the first four sections. All of them, with the exception of the first of the four, were delivered as they are printed. Taken together, these four papers give some insight into the method pursued by the commission in its endeavor to get the problem of industrial education before the people, especially the people whose interests are most involved in it. Some repetitions appear in them; but they are repetitions with modifications, and in different settings; and it has seemed to me best to allow them to remain for whatever value the suggestion of the method pursued by the commission may have.

The brief essay on the "Industrial Continuation Schools of Munich" was written after a winter's residence in the Bavarian metropolis, and this essay is closely related to those just referred to.

The remaining sections of the book deal with a number of questions of more or less importance; one of them, at least — the one referred to in the next paragraph — seems to me of vital importance.

The essay on the "Professional Training of the High-School Teacher" is a discussion of a single phase of technical training for the teaching profession, which has lately come into prominence. It is unfortunately true that relatively few secondary-school teachers (public and private high-school teachers) now in service have seriously studied their profession. Hence the professional horizon of most of them is limited by their classrooms and the subjects which they teach. Such limitations, it has become increasingly apparent, are not to be tolerated much longer. It is on this account that the National Educational Association appointed a Committee of Seventeen to deal with the professional training of high-school teachers, and the essay under consideration is one of the papers contributed to that report.

The essay on "School Instruction in Religion" was written just after my return from a study of the subject abroad. My original purpose was to publish some of the data which I had gathered in German schools; but I concluded not to do that, because of the union of state and church every-

where in Germany, and the separation of church and state in this country necessitates a very different discussion of the problem. As I have said in the essay referred to, the instruction in religion in Germany (Bavaria) seems to me not only usually unsatisfactory, but often actually subversive of the very purpose for which it exists. I am aware that all students of religious instruction in public schools in Germany do not share my view, but I can only say that my own attitude is that of many German teachers in secondary schools and in elementary schools, and of many school officers who, when convinced of the sincerity of my quest, expressed their convictions on the subject freely and with great earnestness.

The last essay in the book, namely, the one on the "Country Schoolmaster in Bavaria," is the result of a week's experience with a State Inspector of Rural Schools. As relatively few Americans who are interested in education visit foreign rural schools, and consequently most of us know little of the condition and the problems of German rural education, I hope the record of my experience in the rural schools of one of the most important German states may be to others, in some degree, at least, as interesting and instructive as the experience was to me.

My thanks are due the *Atlantic Monthly*, the *Boston Transcript*, and *Education* for permission to include in this book four papers which appeared first in their pages.

PAUL H. HANUS.

HARVARD UNIVERSITY,
June, 1908.

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I

INDUSTRIAL EDUCATION

INDUSTRIAL EDUCATION[1]

An efficient public-school system should include adequate provision for vocational training for persons of both sexes over fourteen years of age.

Two important phases of the subject under consideration will not be treated specifically in this discussion, and one closely related phase of education, equally important, cannot be discussed at all. I shall be able to refer only incidentally to industrial education for girls, and to agricultural education for boys and girls; and I shall have to omit all discussion of commercial education. I need all the space at my disposal for the discussion of the general problem of industrial education, with special reference to the training of recruits for our leading mechanical industries.

Heretofore we have planned the work of our public schools almost entirely with reference to "culture"; we have done very little to stimulate a vocational purpose, and less still to provide for the realization of that purpose. In other words, while the schools have laid stress on culture as the end of education, they have laid almost no stress on preparation for a vocation. We may go farther, and say

[1] Printed in the *Atlantic Monthly*, January, 1908.

that, not infrequently, the schools have even disparaged vocational purposes in the training they give. They have been afraid of "utilitarian" aims, and, sometimes, by a curiously inadequate conception of their real function, they have even measured their own usefulness by the extent to which they have kept the distinctly useful out of their work.

By way of illustration I need only to cite the difficulty we have had in getting manual training for boys, and sewing and cooking for girls, recognized as appropriate school subjects or activities. Manual training is not vocational training, to be sure, as will be shown later on; but, whatever manual training may be, its bearing on such training is clear. And it was this obvious bearing on preparation for the vocation of the artisan and the engineer that caused the first advocates of manual training after our Centennial Exposition to urge its claims on the attention of the schools. But so strong was the opposition to teaching a utilitarian subject in the public schools that the claims of manual training for recognition have been based, until quite recently, chiefly on its "psychological" value. I do not wish to belittle the psychological value of manual training, but the strongest reason for giving it a place in our scheme of public education is that

it introduces our youth to a sympathetic understanding of the constructive activities which constitute so important a part of contemporary life. It has not been entirely possible to rob manual training of its distinctly useful quality in public elementary and secondary education, although the attempt has sometimes been made. Nevertheless, in many schools it has been pretty thoroughly academicized. This is one reason why so few of the pupils and graduates of our manual training schools become craftsmen. The manual training, like other school activities, has been used largely as a means of "general education" regarded as an end in itself or as preparation for further (usually technical) education. As for sewing and cooking, they too have been urged for their psychological value. But there has been more speedy recognition of the weightiest reason for giving them a place in the schools, — namely, their *supreme usefulness*, in view of contemporary social conditions and of our enormous and increasing immigrant population.

It is strange that we should be so reluctant to admit the distinctly useful into our scheme of public elementary and secondary education, — that is, to admit that one of the functions of the public schools is to recognize the claims of elementary vocational training as entirely legitimate and de-

that, not infrequently, the schools have even disparaged vocational purposes in the training they give. They have been afraid of "utilitarian" aims, and, sometimes, by a curiously inadequate conception of their real function, they have even measured their own usefulness by the extent to which they have kept the distinctly useful out of their work.

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It is strange that we should be so reluctant to admit the distinctly useful into our scheme of public elementary and secondary education, — that is, to admit that one of the functions of the public schools is to recognize the claims of elementary vocational training as entirely legitimate and de-

sirable. For the principle of vocational training at the public expense has long been recognized in the field of higher education. The state normal schools of the country have educated teachers since 1839; the state universities have educated teachers, lawyers, doctors, druggists, and engineers, and they continue to do so; and the state agricultural colleges give training in agriculture, and often in engineering. Massachusetts, though without a state university, has long aided technical education by scholarships in the Massachusetts Institute of Technology in Boston, and the Polytechnic Institute in Worcester, and by direct grants of money to those institutions. Massachusetts also maintains, partly at public expense, three textile schools for the training of textile workers who desire to rise in their calling.

Our elementary schools and our high schools together constitute, theoretically at least, one continuous educational scheme through which a youth, whatever his circumstances in early life may be, may secure the elements of general culture; and through which, if his circumstances permit, he may attain, on the basis of the preparation secured in school, a college education, or enter at once on professional study in nearly all the professional schools of the country. We have thus planned our educa-

tional scheme primarily in the interests of those who have a long educational career ahead of them, and who need not therefore give any immediate attention to preparation for a life pursuit.

Nevertheless, it is well known that the greater mass of our children and youth are obliged to leave school at the end of the grammar-school period, or when they have attained the upper limit of the compulsory school age,—fourteen years in most states. That is to say, the public-school system in which we take a just pride, as now planned, does not reach the great majority of our youth during the critical period of adolescence. This is the period when life aims begin to have a serious and lasting importance; when the child becomes a youth; when the habits formed rapidly acquire permanence; when the plasticity of earlier years gives place to stability. And because this is so, what happens to him then is likely permanently to shape his future. Yet during this period we send the great majority of our youth into the world without further systematic educational influence, and usually without any comprehension of the serious purposes of life, or training in the endeavor to realize them.

The question which we have to answer is: What becomes of the great majority of these

young people who enter their active life work at the early age of fourteen, with no preparation save that offered by the general education of the elementary schools? Some inquiry was made into this question in Massachusetts two years ago, and it was found that there are probably no less than twenty-five thousand boys and girls between the ages of fourteen and sixteen who are not in school. They are at work in various kinds of juvenile occupations, or they are idle. The boys become elevator boys, errand boys, office boys; they drive a wagon, or do other work in which they learn nothing, in which no demand is made on them for the application of what they learned in school; and consequently, by the time they are seventeen, eighteen, twenty, or more years of age they have an earning capacity but little greater than that which they had when they first left school. And a similar fate overtakes the girls. Moreover, the unfortunate education of shifting experience and environment during these years does much to destroy both the substance and the spirit of the education which they received when in school. The result is that at the threshold of citizenship the great majority of these young people are actually more ignorant than they were when they left school. They are sophisticated, to be sure; but they have

seldom acquired the characteristics of substantial manhood and womanhood; and, as I have just said, economically they are but little more valuable than they were when they began to work. They have not become increasingly valuable "economic units." And the reason, of course, is that in the unskilled pursuits which they have followed it was impossible to acquire the character, knowledge, and skill which would give them an earning capacity proportionate to their years.

A striking illustration of what I am saying was offered by an elevator boy in a Boston building, last spring. This boy said, "Can't you find me a job that would pay me better?" "How old are you?" he was asked. "Twenty-one." "What can you do?" "Well, you see, I left school at fifteen; I have drifted about from one thing to another since; recently my father died, and I find it necessary to earn more in order to help myself and my family." Here was a youth twenty-one years of age, with no capacity to do anything that is worth paying more for than the sum paid for the juvenile services that he had been engaged in since he was fifteen years old. This case is probably typical of the great majority of the twenty-five thousand young people in Massachusetts to whom I have referred, and it is only too probable that what is true of Mas-

sachusetts is true of other states. The investigation referred to also revealed the fact that a large proportion — the majority — of these children would be in school between the ages of fourteen and sixteen if the school afforded a training that promised increased earning capacity. It is fair to conclude, therefore, that the present condition of many young workers, typified by our elevator boy, is preventable.

Moreover, it is clear that the most valuable resources which any state has are its young men (and young women). It is clear that the greatest waste is the waste of these resources. The failure to develop them to their fullest capacity is an irredeemable failure. Boys are not wanted in the industries until they are sixteen years of age, and in some industries they are not wanted until they are past seventeen. If, therefore, between the ages of fourteen and seventeen these boys are allowed to drift, if they go about from one occupation to another in which they do not develop such capacity for mechanical pursuits as they have, or if they remain in school and the academic traditions prevalent there turn them away from the trades, as is not uncommon, they too commonly go to swell the ranks of the unskilled; and as they grow older, of the dissatisfied, the stranded, and the dependent.

Although boys are not wanted in the industries until they are sixteen years of age, the years from fourteen to sixteen are, nevertheless, exceedingly valuable years for education — an education that teaches them the significance of a skilled vocation, and that helps them to explore their capacities and their tastes for the vocations in which skilled labor is needed. These years are, therefore, extremely valuable for purposes of industrial education. What the nature of that education might be I shall describe later on. I shall first sketch the difficulty which boys now find in learning a trade without special preparation for it.

Under the specialized condition of modern industry it is usually exceedingly difficult for a man to learn his trade in a shop, and sometimes impossible. The old apprenticeship system, which enabled a man to learn the whole of a trade, is dead. It is well known that to-day the man in the shop works at a part of the product with a given machine, and knows little of what is done toward the completion of that product by other men and other machines. He is a narrow specialist, working day by day at the same kind of work under precisely the same conditions, the machine requiring but little exercise of thought or ingenuity. Usually he knows little or nothing about the machine itself. The shop has

machinists who repair the machines. Under such circumstances a man loses the habit of thinking, since no demand is made on him for thought. It is true that all men have not "all the conveniences for thinking," even if they were called upon to think, but under the exigencies of the modern shop the habit of thinking is rarely developed. This specialization in modern industry is, however, highly profitable to the manufacturer. It is one of the reasons why goods can be produced so quickly and so cheaply. It is, therefore, like other modern developments, a condition which will survive.

In a shop if a man wishes to learn his trade he has, as I said a moment ago, great difficulty in attaining his end. What happens is usually something like this. A youth applies for work in a shop. He is put, let us say, on a milling-machine. He learns in a few weeks to run that machine. Meanwhile, of course, he spoils more or less material. The machine is subject to his ignorant handling and necessarily gets more or less out of repair; the product which he turns out is more or less imperfect in quality; and the total result is, temporarily at least, a loss to the manufacturer.

If the youth is ambitious, he naturally desires to learn to run the other machines of the shop; but when he asks the foreman to be transferred to an-

other machine, he will be told, "You are doing well enough where you are." The reason, of course, is plain. Every time he is transferred to a new machine the process previously described is repeated. If there are one hundred or five hundred raw men in a shop, the loss to the manufacturer is considerable. The shop exists for turning out products, and not for teaching men how to turn out products. In the shop, therefore, no one has the time, and very often no one has the inclination, to help a man to learn his trade. That is n't what the shop is for.

What happens, then, to our ambitious young man who persists in his intention to learn his trade? He quits, and applies for work at another shop, asking for work at another machine, saying that he is, let us say, a lathe-hand. Meanwhile, he has naturally become somewhat familiar with a lathe and knows something about the working of it. Shortly after he begins his work as a lathe-hand, the foreman comes around to see how he is getting along, looks at the work, and says, "You can't do this work; you can go." Naturally the man has to go to another shop, and there the process is repeated with the possibility, however, of a longer stay. This procedure an ambitious man will continue until he has made himself, by repeated changes and brief periods of practice, a lathe-hand and can do satisfactory

work. I have heard of one man who repeated this process nineteen times in his endeavor to learn his trade. It won't do to talk to such a man about the dignity of labor. By such a procedure a man may require six or seven years to learn his trade; and even then he commonly learns only the processes of the trade and not the theoretical foundations of it. The mathematics, drawing, science, and the rest, applicable to his particular trade, are inaccessible to him. He has little opportunity to develop "industrial intelligence" and the "shop and business ethics" that grow out of insight into and consequent interest in his work, and the sense of responsibility born of conscious resources as a workman and a man. Consequently, although he is better equipped for steady work and for possible promotion to a foremanship than the ordinary specialist, his further progress is obstructed, if not prevented, just at the point where he could become most valuable to himself and to his employer.

It must be remembered that most young workmen are not ambitious and persistent enough to follow so difficult a road in learning their trades. The result is that most of them fall by the way; they become narrow workmen, who can handle a single machine only, and whose prospects of an upward career in their trades are consequently very meagre.

Now let us follow the body of ambitious workmen whom I have described as persisting against tremendous odds in learning their trades so that they can be useful in any part of the shop, and, if possible, rise to the grade of foreman. Such men constitute an army of workers who are going from one factory to another, "stealing their trades," as the phrase is. These men spend too many of the most valuable years of their lives in overcoming obstacles to a career of usefulness, — years that should represent steady progress in that career. Moreover, they cannot become attached to a locality, and the steadying and inspiring sense of usefulness to a single employer or manufacturing concern cannot be realized.

Many manufacturers have encouraged their employees to seek instruction by correspondence, and the extent to which our artisans avail themselves of such instruction is remarkable. For example, out of seventeen hundred employees in a well-known establishment, three hundred were, last year, enrolled in correspondence courses. This is decidedly creditable to American workmen, and it is not discreditable to the correspondence schools. But the disadvantages of instruction by correspondence only are great and obvious. Moreover, since a considerable number of those who enroll in correspondence

courses do not, for various reasons, continue them, a considerable part of the money paid for such courses is wasted. They do, however, afford the sole available means to many persistent and ambitious men to secure the theoretical instruction on which their upward career depends. Besides the correspondence schools, the Y. M. C. A. and other philanthropies offer some opportunities for industrial education to men already employed in the trades. Public schools for trade instruction, aside from the public evening drawing-schools, are very rare.

It may seem odd that under such circumstances the manufacturers themselves have not more frequently established schools in connection with their establishments for the training of apprentices. But it is clear that such schools are expensive if they are in the interests of the workman as well as of the employer. And hence only the largest manufacturers can undertake such apprentice schools anyway. There are a few such schools; but generally the manufacturer prefers to employ the man who already knows one machine. He gets his foremen from other shops, or from Europe; or he may try to train the foremen he needs in his own shop, usually with many disappointing experiences.

Nothing is clearer, however, than that the means hitherto employed are inadequate to meet the de-

mand for skilled labor. Manufacturers in all parts of the country declare that if they could find the skilled help which they need, they could double their plants and hence largely increase or double their output, and that they never have as many foremen as they need. On every hand the need of skilled labor is deplored, and yet we have done and are doing comparatively little to meet this need.

There is a specious American complacency which stands in the way of the proper development of our industry and commerce. This was clearly exemplified at the exposition in St. Louis. It is well known that the Germans who visited that exposition went away much impressed by the magnitude of American industrial and commercial enterprises, and the enormous wealth which resulted therefrom. But they told their fellows on their return to the Fatherland that they had nothing to fear from the American people so long as our complacency prevented us from seeing that it was only the abundance of raw material and the extraordinary ingenuity displayed in our industrial and commercial combinations which led to our success. As a nation we had yet scarcely begun to realize the importance of quality in our output, and of the trained workman in making the most of our resources; and until we did, it was not likely that a nation like Germany which emphasizes

such training and the quality of its output had anything to fear from the competition of the United States.[1]

Such comments, by thoughtful observers, contain a lesson that Americans should heed. Not long ago Mr. Vanderlip of New York expressed himself, in substance, as follows: The remarkable prosperity of the United States is due chiefly to three causes: the great abundance of our raw materials, our ingenuity in the invention of machinery, and our genius for commercial combinations. Not one of these three causes, however, can be looked upon as a permanent cause of success. Great inroads are being made on our raw materials, and some of them are even now fairly well used up. Labor-saving machinery and cheap production cannot be a monopoly of the United States, for this machinery is obtainable the world over. American commercial combinations are being imitated everywhere. It has never yet been shown that the cause of American success in foreign markets was due to the quality of the goods produced. In that respect we have not yet made much progress, and until we do we are, of course, at the mercy of those who are able to use

[1] *Monthly Consular Reports of the United States*, January, 1905, p. 229. Referred to by Professor Harlow Stafford Person in his *Industrial Education*, Houghton, Mifflin & Co., 1907.

all the resources which we possess and, in addition, to use them to better advantage.[1] So far Mr. Vanderlip.

Germany is the classical example of a nation that has not neglected the development of all its resources, men included. For example, in one city — Munich — there are forty different kinds of industrial continuation schools — schools for chimney-sweeps, coachmen, hotel and restaurant waiters, jewelers, shoemakers, carpenters, machinists, blacksmiths, tinsmiths, printers and bookbinders, and the rest. The name continuation school — *Fortbildungsschule* — is chosen advisedly, for every youth who graduates only from an elementary school is obliged by law to continue his education in some continuation school during the period of his apprenticeship to his trade; and each youth finds a continuation school appropriate to his calling. Employers are by law required to give their employees the time to attend these schools — from six to twelve hours a week, depending on the trade, for from three to five years. These continuation schools are not evening schools; because it is well known that boys fourteen to fifteen years of age,

[1] "American Industrial Training as Compared with European Industrial Training." In the *Social Education Quarterly* (Boston), June, 1907.

after a hard day's work in a shop or factory or on a building, are unable to profit by evening instruction to the extent to which they could profit by the same instruction if it were given in the daytime. Moreover, it is clear that forced school work at the end of an arduous day is unhygienic.

In these continuation schools one of the most suggestive arrangements is the close correlation of the theoretical foundations of each trade with the instruction in the processes of the trade. That is to say, the mathematics of the school is the mathematics of the shop, whether it is jewelry or shoemaking or carpentry. The same is true of the machinist's mathematics. Similarly the drawing of the school is the drawing of the shop. The problems which the boy finds in the shop to-day are dwelt upon at length in the school to-morrow. In the same way the closest possible relation of the sciences, physical or biological, to the trade concerned are maintained. The youth learns also the history of his trade, and civics, and the proper use of his mother tongue in relation to his trade.

From the continuation school the youth at eighteen or nineteen enters the army, where for at least two years more he is under systematic educational influence. That is to say, the German nation has been unwilling, for more than a generation, that a

youth after he leaves the elementary school should be without systematic educational influence until he reaches the age of citizenship; while, in this country, we are just beginning to realize our responsibilities in this respect.

The effect of the extraordinary scheme of technical education of all grades, not only the elementary technical education which has just been sketched, but of all higher grades of technical education, on the progress of German industry and commerce is well known. Before the Franco-Prussian War Germany was, industrially and commercially, rather an unimportant nation. Immediately after the Franco-Prussian War, after German unity had been accomplished, the nation devoted itself to the development of its educational system and to the development of industry and commerce; and it has become, as is also well known, one of the most important manufacturing and commercial nations of the world — a tremendous rival in that respect of other progressive nations. While Germany's edueational system is not the sole cause of this extraordinary prosperity, it is, nevertheless, one of the most important causes, and by the Germans themselves is regarded as *the* most important.

Now while it would be undesirable and impossible to transplant any German institution to this

country just as it exists in Germany, it is, nevertheless, clear that this particular German institution offers most valuable suggestions for America. We flatter ourselves that in our democratic society we provide equal opportunities for all through education. That is to say, we claim to provide educational opportunities that will enable a man to make the most of his capacity, his industry, and his character, whatever his original station in life may be. And yet we have failed to provide such an opportunity for that great mass of our population who must face the most serious problem of life — self-support and the means of progressive well-being — at any early age.

Thus far, I have endeavored to show that there is a great need of industrial education. The manufacturer needs skilled labor. The workman needs an opportunity to develop "industrial intelligence" and skill, and a sense of responsibility. I have also endeavored to show that while we have developed with much industry and enterprise the material resources which we possess, we have done little, if anything, to promote the development of the most important resource we have, namely, the great majority of our wage-earning men (and women). I have endeavored to show also that, while the effect of this neglect is to deprive the employer of

the industrial intelligence and skill that he needs, it also deprives the wage-earner of the greatest blessing which any man on earth can have—the prospect of a steady job, and an increasing wage based on progressive efficiency and responsibility. And, therefore, that there is here an educational need for which we have not yet provided an educational institution. This institution is the school of mechanical industries.[1] And it remains to sketch in briefest outline the nature of this school. Such a sketch is suggested only as a basis for intelligent experimenting. It is thought to be definite enough, however, to serve as a possible guide in planning industrial schools, and flexible enough to permit adaptation to local conditions and local needs.

Each school should receive boys (and girls) fourteen years of age and upwards who express their intention to learn a trade. When these schools are fully established, they would require four years of day instruction. The first two years would include much shop instruction, greater in amount and much closer to the trades than the shop instruction of most of the manual training schools now in existence; together with related mathematics, natural

[1] Cf. the *Report of the Massachusetts Commission on Industrial Education*, March, 1907, Public Document No. 76.

science, drawing, the history of industry and commerce, civics treated as concretely as possible, and shop and business English. These two years would serve first of all to direct the attention of boys and girls to a trade, would develop in them the vocational purpose, would explore their several capacities; and should enable them, with the help of their teachers, to select that trade for which they are best fitted by natural taste and capacity.

The last two years would include specialized instruction in the trades appropriate to a given locality, and the theoretical foundations of each trade — drawing, mathematics, natural science, and also the history of that trade, shop and business English, and civics, as before. These last two years could be completed in that time by pupils who are able to attend the school continuously, or in a longer time by pupils who are obliged to work a part of the time; or the work could be done by such pupils in the evening. Some manufacturers believe that some kind of part-time scheme — that is, part of the time in school and part of the time in the factory — is possible for some industries; whereas for other industries the further education of the pupil would have to be undertaken in the evening. Evening instruction for persons already

employed in the trades would, of course, be an important part of every school.

In every community that has a manual training school the plan just outlined for the industrial school could be easily carried out. At this point a brief digression seems desirable. It seems worth while to indicate in a few sentences the difference between manual training and industrial training. Manual training is a means of general education just as history or chemistry or language is a means of general education. It has materials of its own and a method of its own, and hence the result is a peculiar kind of knowledge and power due to the nature of the subject and the method that it demands. That is to say, each subject of instruction is a means of general education because it supplies a peculiar kind of knowledge and develops a peculiar kind of power. Each of these subjects, therefore, possesses an educational value not shared by other studies. The peculiar educational value of manual training is that it gives a knowledge of our constructive activities and a sympathetic appreciation of them which cannot be gained in any other way; and an incipient power to be useful in them, which similarly cannot be gained in any other way. It is, however, as now carried on, usually much too general to be comparable to industrial training.

Manual training abstracts the principles of all trades and teaches them. It ought to make a pupil generally "handy." It is, if properly carried on, an excellent preparation for industrial training. Industrial training goes farther. Besides teaching all the processes of a given trade from the first attack on the raw material to the last touches on the finished product, it teaches the theoretical foundations of that trade. Hence it gives the worker a *technical* knowledge of his trade, and begins the development of skill in the practice of it. It must not be inferred, however, from what has just been said that an industrial school can turn out a journeyman. The skill of the journeyman can be developed fully only in the factory.

Such schools as have been sketched should be independent schools parallel to the existing high schools. They should be independent schools, because the motive which dominates them determines the value of their work in every detail. It is clear from what has gone before that the theoretical instruction of the general high school is not adapted to specific instruction in a trade. In a general high school no specific application of the instruction is aimed at. In the industrial school everything has its specific application. Therein lies its value and its significance. While in training for a trade,

or in the pursuit of that trade itself, there is constant opportunity for the application of all that the pupil has learned, and hence the possibility of progressive growth in thinking about his calling and in his command over it, not only in the processes of the trade, but in all that the trade means.

Under such circumstances the workman knows not merely the processes of his trade; he knows all of them as he cannot learn them in the factory, but he knows the principles of his trade as well. And he should be able to form a just estimate of his own value to himself and to the community.

II

INDUSTRIAL EDUCATION, UNDER STATE AUSPICES, IN MASSACHUSETTS

INDUSTRIAL EDUCATION, UNDER STATE AUSPICES, IN MASSACHUSETTS [1]

UNDER a democratic government like ours, thoughtful people tend to develop the habit of scrutinizing their institutions, in order to ascertain, among other things, to what extent they must be modified or extended to bring them up to date. This scrutiny is not infrequently performed by persons who hold no public offices, and have no desire to hold any. They have been happily called "voluntary statesmen"; not, I suppose, by way of contrast with any possible involuntary statesmen, but to distinguish them from officials whose regular business is, or ought to be, critical statesmanship. Massachusetts has always had such voluntary statesmen. Under their leadership and the leadership of some public officials industrial education, under state auspices, has been energetically advocated in Massachusetts, and during the past year and a half the state has taken active steps to promote the establishment of schools for the training of workers in all the important industries of the commonwealth.

[1] Address delivered at the annual meeting of the Civic Federation of New England, January 9, 1908.

The first Commission on Industrial and Technical Education, appointed for one year by Governor Douglas more than two years ago, made an important report (in April, 1906) on the need of industrial education, and industrial conditions in Massachusetts. The recommendations of that commission led to a statute requiring the Governor (Governor Guild) to appoint a Commission on Industrial Education for a term of three years, and charging this commission with the powers and duties enumerated below.

The present Commission (Governor Guild's commission) on Industrial Education, consisting of five persons, was appointed on August 31, 1906, and was organized in the following month. Since then it has been actively engaged in the endeavor to carry out the provisions of the statute under which it was appointed. The most important provisions of that statute are as follows: —

(1) To continue the investigation into industrial conditions and industrial education begun by an earlier commission, and to provide for lectures on the importance of industrial education and kindred subjects.

(2) To visit and report on all special schools in which industrial education is carried on.

(3) To initiate and superintend the establish-

ment and maintenance of independent industrial schools (*i. e.* schools independent of the existing public schools), including schools for instruction in the principles of agriculture and the domestic and mechanic arts, for boys and girls in various centres of the commonwealth, with the coöperation and consent of the municipality involved or the municipalities constituent of any district to be formed by the union of towns and cities; such schools to be for children over fourteen years of age. The commission has all necessary powers in the conduct and maintenance of industrial schools, and money appropriated for their maintenance by a municipality and the state is expended under its direction. The schools are to be supported by money appropriated by the municipality and by the state, the state aiding in the maintenance of such schools in proportion to the expenditure locally for schools. Each payment to any city or town, however, requires a special appropriation by the legislature.

(4) To provide in the industrial schools part-time classes for children between the ages of fourteen and eighteen, and evening classes for such persons and older persons already employed.

(5) The commission is required also to report annually to the legislature on the condition and progress of industrial education during the year,

stating what industrial schools may have been established and the appropriations necessary for their maintenance; and, further, to make such recommendations as the commission may deem advisable.

(6) Especially, the commission shall consider and report at an early day on the advisability of establishing one or more technical schools or industrial colleges, providing for an extended training in the working principles of the larger industries of the commonwealth.

(7) The commission must appoint a secretary, who is to be its executive officer.

The statute under which the Commission on Industrial Education has been carrying on its work commits the state of Massachusetts to a distinct policy in industrial education; namely, that such education shall be given in schools supported by public funds, but independent of the existing public schools. The importance of this policy deserves emphasis. It is nothing more nor less than the establishment of a new kind of public education on a foundation as secure as that of the existing public schools, but with a different leading motive. It means the establishment of schools for vocational training as such, as distinct from the existing public schools, the purpose of which is general education. The dominant motive of the schools to be estab-

lished under the Commission on Industrial Education is, therefore, preparation for a vocation, while the dominant motive of the existing public schools is general culture. It is important to bear this distinction in mind, inasmuch as the leading motive of a school is the most important factor in determining its efficiency. On it will depend the scope and nature of the work done in the school, the qualifications of the teaching force, and the character of the results which the school achieves.

To prevent misunderstanding, I should like to point out that, although the emphasis in this discussion is on vocational education, such emphasis neither ignores nor in any sense disparages the value of general education. We are fairly well agreed in this country that all education, if well done, is valuable. We have profited much by the system of education hitherto developed, and we shall continue to profit by it. Nevertheless, as I shall point out in a moment, this education is inadequate.

One of the most important principles on which our democratic institutions are based is, briefly stated, equal opportunities for all through education and through equal rights before the law; that is, we insist that in this country every youth shall have the opportunity to make the most of himself, and to lift himself to any social level to which he may

aspire, and to which his character, capacity, and industry may enable him to attain. Yet the school system which has been devised to guarantee this right now fails to reach the great majority of our population after they reach the age of fourteen years. It is well known that the great majority of our school-children leave school at the upper limit of the compulsory school attendance age, — fourteen years in most states ; and hence that the educational opportunities offered are not accessible to them.

The question which we have to answer is, What becomes of this great majority who leave school at an early age ? The investigations of the Commission on Industrial and Technical Education, appointed by Governor Douglas, showed that we have in Massachusetts probably not less than twenty-five thousand of these young people, and that these young people are engaged in various kinds of juvenile occupations, in which they have no opportunity to apply what they have learned. Accordingly, they forget most of what they have learned in school, and by the time they are young men and young women on the threshold of citizenship, they are sometimes actually more ignorant than they were when they left school. The investment of the state in their education is, therefore, largely wasted. Like many other investments, it has, in their case, not been

carried far enough to guarantee satisfactory returns. The situation, however, is even worse. Not only has their normal educational development been arrested, but the unfortunate education of shifting experience and environment has tended to prevent the development of efficient manhood and womanhood in most of them.

Again, these young people have an earning capacity but little above that which they had when they left school. They have not learned what it is to become adapted to a given employment; to make progress in efficiency in a given kind of work; to be attached to a certain locality; to look forward to founding a home; and the serious disadvantages of all this in American life need hardly be dwelt upon. In other words, they find themselves *without a career* at an age when the answer to the question, What shall I do? should have been settled, and when their usefulness in their several careers should begin to open to them the significance of increasing earnings and the responsibilities of a home and of community life, and when the prospects of progressive well-being should be assured.

The investigations already referred to also indicated that the great majority of this large number of young people in Massachusetts would be in school if they realized that the school promised an

increased earning capacity; and the investigations of the present commission tend to confirm this view.

It is clear, therefore, from what has just been said, that our present provision for public education fails to accomplish the preparation for social efficiency which all public education should provide.

A little while ago I referred to the fact that this country has profited much by the system of education which it has developed; but I asserted that it was no longer adequate. I have just pointed out that it is inadequate because it does not develop the social efficiency of a very large proportion of our population. It does not directly prepare the majority of our young people for self-support, with the prospect of steady work and the means of progressive well-being; and these are the fundamental elements of social efficiency. Like every other social institution, our present provision for public education should, therefore, be scrutinized with a view to ascertaining what modifications should be made in it, and especially what additions should be made to it, in order that it may effectively meet contemporary demands.

The public-school system of the past, with its "literary" training, was the best education for young people in an age in which they could not escape acquaintance with community activities; an

age in which life was simpler; in which each person, whether child or adult, had a part to play; an age in which the children participated in the occupations of their parents, had their own duties to perform about the household, on the farm, in the store, the shop, the factory; an age in which the children, therefore, knew precisely what the occupations are with which society keeps itself going, by actual participation in them. As they grew older, they could not fail to realize the significance of a skilled vocation; and they early formed their own vocational purposes, as a natural result of their experience and environment.

Modern social conditions have changed all that. It is usually impossible to-day for urban children to know by participation the occupations of their parents, — especially of the father. He leaves the house early in the morning, and returns late in the evening. His day is spent in the office, or in the factory, or in the shop, engaged in work in which the children have no part, and which, in many cases, they do not even see.

The best education which the schools could offer at a time when the children participated in all community activities, to some extent at least, was to extend their intellectual horizon and to develop their intellectual powers through books. To-day

we need this extension of the intellectual horizon, by all the means which the school for general education supplies, more than ever; but it is clear that we must also assume a responsibility for developing in children a consciousness of the part which they will ultimately play in the world's work, and a desire to equip themselves for it. The education which the community life no longer affords must be provided in the school. That is to say, it is the duty of the public school to provide the children with a general acquaintance with our means of production, distribution, and transportation, with our institutions, our social organizations and activities; and this duty they have begun to discharge by gradually enlarging the scope of their instruction.

While this enlargement has given rise to many technical problems not yet solved by the teaching profession, and while there is even much contemporary confusion and sometimes congestion in our programmes of study in elementary schools and high schools alike, our contemporary public-school education is vastly better than it ever was before, so far as general education is concerned. With all their faults, our contemporary public-school programmes furnish an approximation to our contemporary conception of general culture. The older programmes of study are outgrown; the present

programmes are the result of changing social conditions and the increasing complexity of our civilization.

Nevertheless, with all its growth, our provision for public education fails to reach the great majority of our population during the critical period of later childhood and youth. During those important years when the child rapidly becomes a man; when, therefore, the influences to which he is subject are likely to be permanent, — during those years the beneficent influence of the education he has received is too often, as I have already said, under present conditions, likely to be dissipated, and to be replaced by the untoward educational influences of shifting environment and experience already referred to.

And this is because we have no school that appeals to a large proportion of our pupils and parents; a school that by its very nature suggests the possibility of a career in some skilled pursuit. More *general* education, followed by professional education, is beyond the pupil's means. He therefore naturally takes advantage of the first opportunity to work for wages that presents itself to him, and that opportunity usually leaves him stranded at the age of eighteen or nineteen among the hosts of the unskilled.

It is therefore our plain duty to urge the public schools to point out to their pupils, toward the end of the elementary-school period, the significance and the importance of the skilled vocations. While the choice of such a vocation may happily be deferred for the fortunate ones who can go to the high school, it is high time for those who now leave school at fourteen years of age — the upper limit of the compulsory attendance age — to recognize the momentous significance of their choice of a life pursuit. But, suppose they do recognize it, where can we send them to-day to realize their vocational purpose?

A generation and more ago it was possible for the youth who was obliged to leave school at fourteen or fifteen to enter one of the skilled vocations as an apprentice, and learn the whole of a trade in the course of a few years. It is well known that this is no longer possible. The specialized condition of modern industry makes it impossible for the youth to learn the whole of any trade, even when the inclination exists to teach him a trade. Moreover, he is not wanted there at all until he is at least sixteen years old. The work of a modern shop consists of a number of specialized operations, and the youth who now secures work in a shop learns one of these operations. The man in the machine

shop, in the shoe factory, in the printing establishment, now works at only a part of the product.

The contrast between the sort of workman which a modern shop may develop and the sort of workman which was developed in the shop a generation ago was admirably illustrated by testimony given at a hearing on industrial education at the State House not long ago. This man said that he had learned his trade in Germany. He was past middle age, and therefore belonged to an earlier generation of machinists. He applied for work in a machine shop in this country, and he was asked, "What can you do?" "I am a machinist," he said. The foreman asked him again what he could do, meaning of course, what machine he could run; and the man replied, with the dignity of a well-trained and efficient workman, "*I am a machinist.*" Such machinists are to-day practically unknown as the product of shop experience.

That is to say, the man who learns his "trade" in a shop to-day learns only a single process, or a very small number of processes, and this process or these processes together constitute only a part of the work which must be done on the raw material before it is turned out a finished product. Usually he knows little or nothing of the other processes to

which the material is subject on its way through the shop, and also commonly he knows little or nothing of the machine on which he is working. If the machine gets out of repair, the shop has machinists who repair it. Under such circumstances, it is no wonder that a man becomes an automatic worker. He becomes almost, as has been often said, a "machine" himself. If work happens to be slack in his department, he may be laid off, and must wait for employment until work is needed again of the kind that he can do. Under such circumstances a steady job is not likely to be his portion. Further, he cannot aspire to be foreman, or superintendent, or manager, except under very unusual circumstances. He may "steal" his trade, as the phrase is; that is, he may go about from one factory to another, trying his hand at different machines, until he has consumed six or seven years in learning all the machines of a given shop. Under such circumstances he wastes much valuable time and even then he fails to learn the theoretical foundations of his trade, even though he may acquire all the processes that belong to it. The obstacles thus presented to an ambitious man are exasperating; and if baffled, in spite of his persistence, in attaining his end, he is likely to swell the ranks of the permanently dissatisfied, and with his limited insight

into social conditions may even become a menace to the stability and progress of society.

It should also be pointed out that it is not profitable to-day to employ boys under sixteen or seventeen in the shop, even at the least remunerative employment which the shop affords. Consequently, boys from fourteen to sixteen must turn their attention to the juvenile occupations already referred to, in which the prospect of an upward career is impossible. It should also be noted that by the time these young people are eighteen or nineteen years of age many of them are lost to the skilled occupations altogether.

The specialized condition of industries to-day, to which reference has been made, also demands a larger supply of foremen and other officers, — a larger supply than was formerly needed; but the men are not available. Manufacturers have repeatedly asserted during the past two years, in my hearing, that if they could find the competent, skilled workmen they need, they could largly increase their plants and largely increase their output; that they never have all the foremen they need; and that it is exceedingly difficult to find managers and superintendents. It is easy to find the man for small wages, but the man who is competent to take the post commanding a higher wage is difficult to

find. At the same time, it is clear that a state like Massachusetts is dependent for its prosperity on its industries, including agriculture. It is clear that a region poor in mineral wealth and in natural resources generally must develop the resources it possesses in men and women.

Much stress is laid by the manufacturer on the necessity of "industrial intelligence" and skill in the workman. This means that the workman shall be able to understand the necessity of working with economy of time, material, and effort, as well as skill. All these are indispensable to the efficient workman. The manufacturer also demands a sense of responsibility in the workman. He demands observance of shop and business ethics. He wants character. Now, the state demands these characteristics of its citizens, whatever their vocation may be. Such characteristics, however, cannot be developed out of nothing. The way to make a man feel a sense of responsibility is to develop resources within him, the effectiveness of which he feels in his daily work. If he can see the significance of his resources, of intelligence and skill in what he does, the sense of responsibility will develop naturally. It is just this which the modern shop fails to develop. It tends, as has been said, to make a man a machine; it tends to develop in him

only a narrow kind of efficiency; it fails to help him to see the significance of his work for himself, for his employer, and for society. Is it any wonder that, under such circumstances, the workman fails to show the characteristics which are in such demand?

From the foregoing, it is clear that the difference between our mode of living to-day and a generation or more ago, and the difference between the conditions of all our productive industry today and a generation ago, indicate that a new educational need has arisen, because of our changed social and industrial conditions. This need can only be met by the establishment of schools that will give our youth the intelligent insight into the vocations which they choose, and incipient skill to be efficient in them. Such schools would send into our industries youth fully equipped to meet the exigencies of modern life. They would be good citizens as well as good workmen, for they would understand the significance of all that they did as well as its important profit to themselves. The consciousness of resources would render them progressively responsible and efficient workers in the shop, and equally progressive and efficient members of society.

I greatly regret that the time at my disposal

will not permit me to discuss two very important phases of industrial education; namely, agricultural education, and the industrial education of girls and women. You already perceive that I need all the time at my disposal for a single phase of this vitally important subject. But the Massachusetts Commission on Industrial Education has a profound interest in agricultural education and in the industrial education of girls and women; and is doing all it can to promote their development.

To sum up:

(1) Our present provision for public education is inadequate. Its dominant aim — a worthy aim — is general culture: but it makes no provision for training for specific usefulness in some skilled vocation for those who must leave school when fourteen or fifteen years old, and who therefore must face at an early age the momentous question, *What shall I do* to insure early self-support and progressive well-being as I grow older?

(2) The progressive development of all high-grade industries requires skilled workmen, possessing industrial intelligence; that is, comprehensive insight into and intelligent interest in their several trades, as well as skill.

(3) The present conditions of production are unfavorable to the training of such workmen in the

shop or factory, and sometimes render such training impossible.

(4) All industries, whatever their grade, need more men than are now obtainable who are capable of acting as foremen, superintendents, or managers, —men possessing the comprehensive insight, interest, and skill necessary for the organization and direction of a department or a shop.

(5) Such men, whether workers, foremen, or superintendents, are now usually developed in this country, in general, by chance; and they are then self-made men, possessing the merits but also the conspicuous shortcomings of their training.

(6) Meanwhile, boys and girls, young men and young women, are not only not directed toward the trades in our existing schools, but are often actually directed away from them by the bookish education of those schools and their purely academic traditions. Manual-training high schools are institutions for general education, like the academic high schools; although, unlike them, they serve to give a certain class of pupils a high-school education with the help of manual training, or, like them, to prepare their pupils for professional training in some college or engineering school. Manual training is not industrial training, and should not be confused with it. Manual training gives, if well done, a general ac-

quaintance with our constructive and productive activities. It may make a pupil generally "handy," and hence may serve as preparation for industrial training. But it goes no farther. Industrial training, on the other hand, means vocational training, — training in trades and in agriculture. It aims to develop industrial intelligence and skill in particular vocations. It does not properly begin until the pupil is at least fourteen years old. It does not make a journeyman, but it gives each worker at a skilled vocation a training that enables him to earn a living wage at eighteen or nineteen, and that gives promise of increasing efficiency as time goes on.

(7) Boys are not wanted in the industries until they are sixteen years of age. The result is an army of young men from fourteen to sixteen years of age, most of whom are either at work in various kinds of juvenile occupations in which they learn no trade, are subject to little, if any, beneficial general education, and often to much harmful education from shifting experience and environment. The majority of these children would be in school if the school promised preparation for some life pursuit.

(8) These years and the subsequent years are, however, valuable for industrial education; but there has been no agency whereby this education

is provided, save to a limited extent, and then chiefly by philanthropy or by correspondence.

(9) Hence the need of industrial schools to supplement the existing public schools, and to meet a new educational need which has evolved with the evolution of our industry and commerce. Such schools should receive pupils fourteen or fifteen years of age who declare their intention to learn a trade; and would, therefore, be parallel to the existing public high schools, but independent of them. Such schools should be independent schools, because their leading motive is vocational training and not general culture, and the efficiency of a school depends on its leading motive.

(10) Such schools should offer a course of study covering four years of instruction. The entire course could be completed in that time by those pupils who could attend continuously; in a longer time, and perhaps partly in the evenings, by those who could not. The first two years would comprise general shop instruction, with related drawing, mathematics, natural science, the history of industry and commerce, shop and business English, and the reading of appropriate articles and books. The last two years would give the shop instruction for particular trades; and for each trade represented, the drawing, mathematics, physics, chemistry of that trade,

the history of that trade treated both as special history and as a branch of general history, civics treated as concretely as possible, and English as before. Evening instruction for persons already employed in the trades would be an important feature of such schools.

It is not likely that such schools can achieve marked success at once, or that they can be founded or carried on without some mistakes. But an encouraging beginning has been made. Several evening schools of trades for men and women have already been started by municipalities coöperating with the commission; and a day school of agriculture has been authorized and will soon be under way. All progress involves some risks. The Commission on Industrial Education intends to make no mistakes, but it intends to make progress; and to that end it invites the coöperation of all who have the welfare of the wage-earner, the employer, the agriculturist, and so of the entire commonwealth, at heart.

III

WHAT KIND OF INDUSTRIAL SCHOOL IS NEEDED?

WHAT KIND OF INDUSTRIAL SCHOOL IS NEEDED?[1]

I DON'T think any extended explanation of our errand here will be necessary. You all know that this commission is appointed for the purpose of promoting the establishment of schools for the training of men in industrial occupations; and we are here, therefore, to confer with you on such general plans as the commission already has. It goes without saying that both employers and employees have an equal interest in such an enterprise as this; and it is, of course, on that account that we arrange conferences with both parties. We shall be very glad, if questions are asked, to answer them as well as we can; and in order to set the matter before you I will outline a rather indefinite plan, talking about it as definitely as possible, which may serve as a basis for discussion, and possibly in the future for the actual development of schools.

You may be aware that the last commission found that there are at least twenty-five thousand

[1] Introductory remarks at a conference with Labor Union representatives, at Worcester, January 12, 1907. Reported stenographically.

boys and girls in Massachusetts, between the ages of fourteen and sixteen, who are now in various kinds of juvenile employments, or who are idle; and that these young people who enter the juvenile employments earn very little at the start, and increase their earning capacity but little as the years go on, so that by the time that they are eighteen, or nineteen, or twenty, they are able to earn little more than they had earned when they were much younger; and that at eighteen or nineteen a very large proportion of them have arrived at almost the maximum of their earning capacity. Now, the commission, of course, desires to prevent this waste, and is especially desirous of securing for these young people a career in a trade which will insure them a steady job, and, if they are the right kind of workers, an increasing wage.

Let us consider, first, what can be done for the boy who is about sixteen years of age and who is ready to begin the learning of a trade. If such a boy as that were to enter a school which showed him at once how to develop the capacity that he may have for a given trade, — one of the machinists' trades, or one of the building trades, or agriculture, or any calling to which he desires to devote himself, — such a school would help him to develop gradually the efficiency which the workman

ought to have. Such a school would provide, of course, much instruction in shop work. It ought, however, to do a good deal more than simply to develop mechanical skill. A school which does only that is not the best kind of an industrial school. The school ought to help the man to see his trade in all its bearings, and ought to enable him to understand its theoretical foundations. Hence, besides the shop work, such a school ought to provide instruction in drawing, enabling the man to learn to read a working drawing, and also, of course, to make a working drawing. It ought also to provide instruction in mathematics, — the geometry, and algebra, and the arithmetic appropriate to his particular trade; so that the problems solved in the class room are the problems of the shop. Further, most of the trades, including agriculture, will require, also, instruction in physics and chemistry and other sciences, so that a man would know something about the origin of the materials that he uses, how these materials are prepared for the uses to which they are put, what their qualities are; and, in short, would have the sort of information which now a worker sometimes gets only after many years of experience and private study, and usually fails to get at all. Also, such a school ought to give some instruction in the history of the

man's trade, so that he knows the part that the trade plays in the industries which are maintained, the part which it has played, its relations to other trades, and so on.

Now, in such a school as that it is clear that the workman would have acquired not only the mechanical processes and the incipient skill which every workman ought to develop, but it is clear that the man would get a kind of insight into his trade altogether like that which a professional man gets into his calling.

Such a school naturally cannot make a finished workman, although it can teach a trade; much additional practice is needed to make the skilled journeyman. It can do for the workman, however, what the shop cannot do. You are well aware how highly specialized—most of you know that a great deal better than we do—modern industry is, and therefore how difficult it is for the man to learn in the shop all the processes of his trade; how, indeed, very often it is quite impossible. Such a school as we have in mind would naturally make good that deficiency. It would enable a man not only to learn a particular process or a particular part of a trade, but it ought to enable him to learn the whole of it.

As I said a moment ago, it is not the expectation that the school alone will turn out skilled jour-

neymen. The skilled journeyman is the product of the school and subsequent shop experience. The two together give him industrial intelligence and skill, — the two things that make him progressively efficient; because he is conversant with all parts of his trade and its underlying sciences, and understands himself and his relation to other workers, and his trade in relation to other trades and to the social whole of which they are parts. His subsequent progress will depend solely on the acquisition of increasing speed and skill, and his power to apply what he has learned.

So much for the boy of sixteen who is ready to begin to learn a trade. As I said a little while ago, there is a large army who go astray, who leave school at fourteen or fifteen, and in the course of the next few years forget what they have learned and learn nothing more; so that many of them when they reach the age of twenty-one are not as well equipped, mentally, as they were when they left the grammar school. Now, to provide an opening for these fellows in the trades, such a school as I have referred to would have to take them in at fourteen or fifteen, when they leave the grammar school, and "try them out," so to speak, up to sixteen; so that by the time they are sixteen it would be possible to ascertain whether they were fitted for any mechanical trade,

and it also ought to be possible, under good management, to tell what trade they are fitted for. Of course in such a school there would be much shop instruction. Such instruction would be parallel to the instruction in manual training in the manual-training high schools, but it would be much closer to the trades. It would not be trade instruction, however, but adapted to young pupils.

In such a school, if we provide during the first two years suitable instruction in English, mathematics, chemistry, physics, and drawing, and the history of industry and commerce,—if we should provide such a school as that, what would happen? We would, in the first place, deepen and extend the knowledge of the pupils who now leave school when they are fourteen or fifteen, and *all of that education will be pointed in the direction of a trade.* The whole atmosphere of the school, as the result of its special purpose, will tend to direct boys into a trade, and girls, too; for of course, although we talk much about boys, we do not lose sight of the girls. Many girls have to go into some skilled industry, and, like the boys, they are not provided with opportunities for preparing themselves for these skilled industries. These boys and girls, then, having been kept under systematic educational influences from fourteen to sixteen, when they are

ready to begin to learn a trade, will not have forgotten what they had learned. They will have extended and improved their knowledge; they will have deepened it; and they will come to the important period of young manhood and young womanhood with a purpose and a training which at present the great majority don't get.

Now, it is sometimes thought that the ordinary school could give this incidental training in physics and chemistry and mathematics and drawing and history and English, to which I have referred. It is sometimes thought that the ordinary school can do that. The difficulty about that supposition is, that, in the first place, the school has not done it, —that is, it has n't done it so as to develop in these boys a vocational purpose. The work of the elementary school and of the high school is general education. It is intended to extend the knowledge of the pupils and to develop their mental powers; this education the ordinary school provides, whether elementary school or high school, without reference to the application of what the pupils learn to any particular vocation. Such a school as this commission has in mind, I take it, is a school which intends to develop from the very beginning the vocational purpose, and intends to shape all of its work in such a way that the vocational purpose will be preserved

throughout. That is to say, it would be natural, of course, for every boy who entered such a school as this at fourteen or fifteen, or later, — it would be a natural and proper thing for him to declare his intention to learn a trade; otherwise, his place would be in the high school, and not in such a school as this commission is likely to approve.

In the second place, the value of the so-called academic studies, the mathematics, the trade-history, the English, the science, — the value of all that to the prospective trade-worker is in the motive, in the purpose with which it is pursued, and in the close relation of the work done in those studies to that purpose. General chemistry or physics, for example, as such, would have comparatively little interest to a pupil going into the metal trades. What the metal-worker is particularly interested in is the chemistry or the physics which is appropriate to his particular calling. And when we come to drawing, the drawing which the printer or jeweler uses is a different kind of drawing from that which the machinist needs or that which the carpenter needs. It is clear that the problems to be solved by the printer in his trade, the mathematical problems, the arithmetic say, of his trade, is different from the arithmetic of the machinist or the arithmetic of the carpenter; and it is clear that

the geometry that the agriculturist needs is different from the geometry of the machinist and of the carpenter.

The difference, therefore, between instruction in these studies in the ordinary school and in the school which provides education for a trade is clear. It is the business of the general schools to give a general education. It is the business of a school which stands for the development of mechanical skill and for the all-round development of the workman in a trade to shape its work in such a way that everything that is done in that school will help in the direction aimed at. Therefore, I think it is important to make sure that all this academic instruction, which, for convenience, may be called theoretical instruction, that is, — the drawing, the chemistry, the physics, the English, the history, the mathematics, — all that theoretical instruction has its particular uses for the particular tradesmen. The general instruction of the high school is useful for the boy who does n't yet know what educational career is ahead of him; or for the boy who has a longer educational career before him, and can wait a long time to find what particular portions of the chemistry, history, and the rest are of special value to him.

We want, therefore, to do these things, — we

want to train the workman in the shop in such a way that he gets all the processes of his trade, instead of a single process. We want to prevent the development of a narrow tradesman, — a narrow mechanic. We want, so far as the school can do it, to start the development of an all-round tradesman in his craft. The more he knows about his trade and its theoretical foundation, as well as the processes of it, the more likely he is to be the sort of workman we want.

Now, I have sketched as definitely as I could a very indefinite scheme; and I think, perhaps, I have said enough to suggest to you the sort of general plan which the commission has in mind as possible of working out, and as possible of adjustment to local needs. It is clear that this community, for example, will need a school for training for the trades different from that needed by the city of Attleboro, for example, or needed by another city whose industries are totally different from those of this city. Therefore, it is quite impossible to say in advance what the precise nature of such a school would be, until a given community sets forth what its particular needs are, and suggests the development of plans to meet those particular needs. Then the commission can deal specifically with those particular needs as they

arise, and either approve, or approve with modifications, or decline to approve, as the case may be, such schemes as may be presented.

I think I have said enough, gentlemen, to start the ball rolling. We shall be glad to get from you your own point of view, and to answer the questions that you may raise if we can. Mr. Morse, our secretary, is a man who is himself skilled in several trades, and knows the work of the trades as most of the rest of us do not; and he reminds me of one very important feature of our plan of which I neglected to speak.

There are a great many men now employed, of ages from eighteen or nineteen to perhaps forty, and even older than that, who feel that they want further instruction; who feel that they need instruction for their own improvement and for the betterment of their chances in the industrial world. Those men, of course, are unable to leave their work in the daytime; consequently, such a school as I have been talking about would provide instruction in the evening for men of that class. We have no doubt that the number of men who would avail themselves of such evening instruction would be considerable. The experience of the two public evening schools of trades in this state, namely, the one at Springfield and the one at Cambridge, and

the evening classes of the Y. M. C. A. the country over, and of other philanthropies, shows that there is a widespread demand for that kind of instruction.

While I am on this point I may as well also refer to what some of you may have already availed yourselves of, namely, the correspondence schools. The extraordinary success of these schools is an indication of the earnest desire of many workmen to improve themselves in their several vocations. Such a school as we are planning ought to put at every man's elbow the kind of school that he now tries to get by correspondence; and if any of you have experienced the disadvantages of instruction by correspondence, you know better than I how great they are. They are very great, but such instruction is better than nothing.

As you gentlemen are also aware, this movement is not confined to Massachusetts, though Massachusetts, fortunately, is the first state which has taken steps to secure industrial schools. There has been formed recently a national society for the promotion of industrial education, and this national society is arousing widespread interest and is securing strong support. It is likely to have a decided influence on the development of industrial education throughout the country.

Now, what we are all concerned about is, that

this industrial education shall be what it ought to be; that it shall be wise; that it shall be beneficial; that it shall accomplish what we are aiming at; that it shall promote the best interests of the employer and the employee. About a month ago I was in Providence, and they are moving in Rhode Island toward securing a commission similar to the one which Massachusetts has. About two weeks ago I was in Syracuse, and I found that in New York State they are beginning to move in precisely the direction in which we are moving in Massachusetts. But Massachusetts is in the lead. Naturally we believe that Massachusetts ought to be in the lead, and keep the lead; so that in all our industries we shall turn out the best products and furnish the best conditions for the workingman. The two things inevitably go together.

IV

INDUSTRIAL EDUCATION AND SOCIAL PROGRESS

INDUSTRIAL EDUCATION AND SOCIAL PROGRESS[1]

THIS Commission on Industrial Education, appointed by Governor Guild, is the result of a recommendation made by a previous commission appointed by Governor Douglas. That previous commission was appointed to investigate the industries of the state and the needs of industrial education throughout the state. That they accomplished. They published their report in April of last year, and a very valuable document it is, one of the best educational documents which, I think, has been published in this country for many years. They recommended the passage of a law directing the Governor to appoint a commission to continue investigations into industrial needs and into the methods of industrial education, and particularly to promote the establishment and maintenance of schools for industrial education throughout the commonwealth; and you see before you this commission, appointed by Governor Guild in accordance with the statute.

[1] Introductory Remarks at a Conference with Citizens, at Pittsfield, January 24, 1907. Reported stenographically.

Governor Guild's commission was organized in September; and since that time the commission has been busily engaged in acquainting itself with the conditions throughout the state,—with the desires of the people in different localities, and with what could be expected in the near future in the way of schools to respond to the needs which different localities may feel.

I suppose, Mr. Chairman, in response to your invitation that I should take my own method to put before this conference what there is of interest in our minds concerning industrial education, I may, if you please, begin with a somewhat general sketch of the development of Massachusetts, and of the appearance of new educational needs as that development has gone on; and of the fact that up to the present time those new educational needs have not been met by suitable educational institutions,—that is, by suitable schools.

All of you are aware that reading, writing, and arithmetic formed the programme of studies, or "course of study," of the colonial school; and that, as the colonies developed, expanded in territory, and increased mightily in their occupations and in their various industries, the extent of territory and the growth of their activities brought, among other things, an influx of immigration. Now, these for-

eigners needed to be assimilated; and for that purpose it was seen that the history of this nation,— how it has come to be what it is, what it stands for, what the ideals of this country are,— it was seen that it was important to teach this to the people coming to this country and expecting to become citizens; and so history became one of the studies in the ordinary school programme. So, too, with the extension of territory and the relations which this country came to have with foreign nations it was found that geography was an essential study. Up to that time geography had not received much attention in the common schools of the land; but as soon as our territory began to expand, and we came to have relations with other nations, it was seen that geography was a desirable thing to put into the programme of studies. Not long after that people began to gather in cities, and what had once been largely a rural population became largely an urban population, and that is particularly true of Massachusetts. With the development of an urban population there grew up, of course, a new series of educational needs. Boys and girls who had been bred in the country and who had various tasks to perform about the house and the farm had learned to use their hands and to direct their hands by their heads. When people

moved into the cities the opportunity for such training was greatly diminished, so that at last that kind of education was largely wanting; sometimes to-day it is wholly wanting. The effect of that is, of course, to make our school education one-sided. The education of the schools was academic, as we sometimes say; that is to say, it was literary, bookish, — did not reach the whole boy or the whole girl. It was a good education for its time, because of the home conditions of the children, whether in the country or in the villages, where our people then lived largely, or in very small cities; but with the growth of cities the education afforded in the existing schools had become inadequate.

Now, the point I am trying to make is this: the school system of any state is a growth; that it is a growth in response to educational needs as they appear; and that that state has the best educational system which clearly recognizes those needs, and then adjusts its educational institutions, its schools, so as to meet those needs.

Early in the nineteenth century Massachusetts began to be more and more a manufacturing community, — it was no longer a farming community to the extent to which it had been; and this change has continued, until, as you know, Massachusetts

is to-day largely dependent for its prosperity, for its very existence, on its industries, on the way in which those industries meet the needs of our people and of other people whom we wish to sell goods to.

And that brings me, of course, to the point of which I wish to speak; namely, the need of supplying the kind of education which would enable us to produce goods which we find satisfactory ourselves and which would enable us to compete in the markets of the world, and at the same time to produce men worthy of Massachusetts and of any part of the world. In other words, the new educational need which has arisen is a school that will train men and workers and citizens. Our present schools are doing excellent work; they are doing all they can do; and they are doing it better than they ever did it before. Some of you may have heard from time to time a complaint that the public schools of to-day are no longer doing the solid work which they did a generation ago. It is n't true. There are some persons, impervious to evidence, who insist that the public schools are not doing as good work to-day as they did a generation ago. Some of you may have heard of an investigation in a town of this state a couple of years ago. That town was Springfield. The superintendent of schools discovered some examination

papers of more than a generation ago, — some papers in geography, arithmetic, and spelling. Now, those same examination questions were asked of the pupils in the schools to-day; and the results of those examinations were ever so much better than they were when the same questions were answered a generation or more ago. The same experiment was tried in Boston in a number of schools; it was tried in other towns in Massachusetts; our friends in New York heard of it, and they tried it; in other parts of the country the same experiment has been tried, — and always with similar results. I insist, therefore, that in the matter of arithmetic and spelling and geography we have proved that the schools are doing better work to-day than they did a generation ago.

My point is this: that the public-school system is not only doing the work which it did a generation ago, and doing it a great deal better, but it has been obliged, on account of the change in educational needs, to do a great deal more and to do it well. But with all that, and because of it, the existing public schools are no longer able to cope, unaided, with the educational problem which confronts us to-day; this problem, namely, of so training our workers that they will be the best kind of workers which this country can produce, and that

at the same time they will develop the conditions which go with increased efficiency, — that is to say, increasing wages and steady employment. I take it that everybody will agree with me that one of the greatest blessings in this world is a steady job and the prospect of an increasing income.

The purpose of industrial education, as I see it, is this: to provide a kind of education for the worker which will benefit him, and at the same time, of course, benefit the employer, — benefit the employer and benefit the workman, and so benefit the society of which they are both parts.

The question arises, of course, first, how this is to be done; in what sort of schools such an education as I am sketching in the roughest outline may be provided.

You are aware that up to the age of fourteen the children are by law obliged to go to school, and under certain conditions they are obliged to go to school until sixteen; but up to fourteen you know that all of them are obliged to go to the ordinary public schools. That is a wise law. Now, after fourteen, if they can remain in school, they may at present go to high school. The high school is an institution for general education; that is to say, it is an institution for an education that does not prepare for any particular occupation; it is

an institution without the vocational aim, without the vocational purpose.

Now, any kind of an institution for industrial education must have a vocational purpose; that is why it exists. It aims to equip the person who follows the course of instruction in that school so that he can realize that vocational purpose; that is, so that he can get himself ready for a vocation, and become progressively useful in it. What I described a little while ago as an opportunity for a steady job and an increasing wage is the result.

The last commission, to which I referred at the outset, showed that there are at this moment in Massachusetts at least twenty-five thousand boys and girls between the ages of fourteen and sixteen who are either idle or at work; and it showed that of that large number a large proportion entered various kinds of juvenile employment, like driving a wagon, running an elevator, being an office boy or an errand boy, or some other kind of juvenile occupation, in which they remain for several years; and when they get to be eighteen or nineteen or twenty years of age their earning capacity is very little more than when they began, because they have not learned something in which they could make progress. The report of the Douglas Commission showed also that a large proportion of these boys and girls would

have remained in school if there was to be had in that school the preparation for a life occupation which would afford them just the thing I have been talking about, — steady employment and the prospect of a rising wage. Now, the parents are easily determined in this matter by the attitude of the children, and many parents were shown to be in favor of having the children in school. I repeat, the parents desire their children to remain in school. But about the time a youngster is fourteen or fifteen years of age, an inactive life does not appeal to him; moreover, a life in which he is under a kind of control, which does n't seem to him to prepare him for the work on which he is to enter, does n't appeal to him; a school whose aim is only general education does n't appeal and cannot appeal to a large proportion of boys or to a considerable number of girls.

One of the fundamental principles on which our education is based is that there should be equal opportunities for all, — opportunities for those who can go to college, and also appropriate opportunities for those who cannot go to college. But up to this time the bookish education of the schools has been adequately adapted only to those who can follow a long educational career; we have not yet made adequate provision in our school system for

the education of those who must begin to earn their living early.

Another reason — on which I must delay briefly — why these schools for industrial education are important is this: those boys who enter the juvenile occupations at fourteen or fifteen, who remain in them or shift about from one to the other in an aimless fashion, are likely to forget, by the time they enter on full manhood, what schooling they had up to fourteen or fifteen. They are apt to be worse off educationally than they were when they left school; they have not been under systematic educational influence for a number of years; they have had no occasion to apply what learning they have had; and the consequence is that what they had acquired by the time they were fourteen or fifteen years of age is largely dissipated. Many of them are worse off for their experience; that is to say, the habits which they have acquired during that time, — the habit of indolence, the lack of a definite purpose, the failure to found or to look forward to founding a home as well, — all these things work against their being the kind of citizens we want.

Now, foreign nations, especially the continental nations of Europe, recognized this long ago. They have supplied an institution which they call the "continuation school," which requires boys — and

girls too, for that matter, but boys especially — to be in school for several years longer after they go to work.

I want to come rapidly to my conclusion, because I don't want to hold you too long with these introductory remarks; but I do want to start the discussion in a way that will enable you to feel, when you go away from here, that the subject has been as thoroughly discussed as it may be discussed in a single evening, with such help as the commission can give.

The question is this: What kind of a school do we want in order to meet this educational need which I have been referring to, — in order to equip these boys who won't stay in the schools; who won't go to the high school; who drift into all kinds of juvenile occupations where they are not so much needed, and who at eighteen or nineteen are not able to do the work which they ought to do — or even at twenty or twenty-one — for their own benefit and the benefit of society? What kind of a school do we need to help these boys and girls to such a preparation for a vocation that will, in the first place, give them a vocational purpose; in the second place, enable them to select their vocation; and, in the third place, equip them for their vocation, and at the same time give them such general

training as every citizen, every man, ought to have?

Suppose that we establish an industrial school; and, by the way, that is a very different thing from the manual-training school. The manual-training high school is a very valuable educational institution, but it is again an institution for general education, not for vocational education. The experience of manual-training high schools shows us that very few of the graduates go into the industries; they go to some higher institution, to some technical school; and few find their way into the industries; and that is what is to be expected. Manual training is so general that it does not equip for a particular vocation, and is not intended to. It is a means of educating the boy with the processes of construction and with the use of concrete materials; just as chemistry is a means of educating the boy by the use of chemicals and the processes of the chemical laboratory; just as Latin is a means of educating the boy by the means and method of language-study; just as history is a means of educating the boy by the materials and the methods of instruction in history. All of that means that in each of those studies there is a certain knowledge not to be got from other studies, and there is a certain development of power which those studies bring

that other studies do not. But some boys cannot be educated by book studies alone; and they can be educated by the studies which the manual-training school affords. In other words, what I have been saying is this: the manual-training high school, however good it may be, is a means of general education, and is very valuable as such; thousands of boys since the manual-training schools began have had a high-school education who never would have gone to a high school if it were not for the manual training given.

Now, then, to come specifically to what I have been approaching two or three times, what kind of a school would this industrial school be? Whatever it is, it must be a school adapted to the locality where it is found; no other school would answer. In general terms, it would be something like this:

For the boys from fourteen to sixteen it would be a kind of preparatory school. It would also provide much shop instruction resembling manual training, but this work would be much closer to the trades than the manual training in a manual-training high school. It would also teach, of course, physics and chemistry, but the physics and chemistry which underlie the trades. It would teach history, but particularly the history of trade and commerce, and especially the history of industry,

commerce, and agriculture in Massachusetts. It would teach, of course, mathematics and bookkeeping; every man ought to have a knowledge of bookkeeping, in order to carry on his own affairs satisfactorily. It would also teach, of course, the drawing which would underlie the shop work, and it would teach English. When, after about two years, we have found out whether the boy has what we call mechanical capacity and mechanical dexterity, the right kind of capacity to learn a trade, and possibly what trade, — when we have found that out as well as we can in the first two years, the boy would then begin in our school to learn a specific trade: one of the building trades, the machinists' trade, or, in an appropriate community, the jeweler's trade, or what not. From that point on, the education of the boy would be specialized, would closely follow the actual work of his trade. The expectation is also that the boy would learn not only the processes of his trade, the chemistry and the physics which underlie it, the mathematics and drawing that underlie it, — he would learn the history of his trade and its relation to other trades, and he would learn to use the English language so as to express himself easily and correctly on matters of interest to him, and he would also know something of the disinterested pleasure to be derived from good literature. He

would get, first of all, that kind of all-round training that would give him a comprehensive and intensive interest in his vocation; that would enable him to understand it as the man who works with his hands only, and not with his head, does not and cannot understand it. His interest would be akin to that which the professional man has in his occupation, — the engineer in his work, the lawyer in his. Such a school would, however, do more for the pupil than to cultivate his industrial intelligence and mechanical skill. It would increase the significance of his life both within and without the shop, and would tend to make of him an enlightened and progressive American citizen, as well as a superior workman. Such men would be of great use to their fellow workmen, as well as to their employers. Whatever discontent they might feel would be enlightened discontent, — a kind of discontent that a democratic society like ours has always respected.

Who could doubt that such a school as that would turn into the field workers of a much greater ability than the workers we have now? Who can doubt that the employer would be glad of such employees, and that together they would turn out products far superior to those which we make now? Some of you know that some of its industries are already leaving Massachusetts. It is pretty clear that if Massachu-

setts is to hold its own among prosperous communities, and to grow in prosperity so that the workers may always find work and the employers always find opportunities for the profitable investment of their capital, Massachusetts must take the lead in producing the finest and highest grade of goods. Such goods can be produced only by the best workmen, working under the most favorable conditions. Superior workmen and good industrial conditions depend in large part on industrial education. It is the chief means of developing men, workers, and citizens, and so adding to the prosperity of the entire state.

V

THE INDUSTRIAL CONTINUATION SCHOOLS OF MUNICH

THE INDUSTRIAL CONTINUATION SCHOOLS OF MUNICH[1]

SINCE 1900 the city of Munich has gradually been transforming its "continuation schools" for elementary-school graduates (corresponding to our grammar-school graduates) into elementary technical schools for apprentices in the trades and in business. The city now (1907) maintains thirty-eight different kinds of these schools, as follows: In 1900 were opened schools for butchers, bakers, shoemakers, chimney-sweeps, and barbers; in 1901, for woodturners, glaziers, gardeners, confectioners, wagon-makers and blacksmiths, tailors, photographers, interior decorators, and painters' materials; in 1902, for hotel and restaurant waiters, coachmen, painters, paperhangers, bookbinders, potters and stove-setters, watchmakers, clockmakers, jewelers, goldsmiths, and silversmiths; in 1903, for foundrymen, pewterers, coppersmiths, tinsmiths and plumbers, stucco-workers and marble cutters, wood-carv-

[1] This brief description of an important experiment in Education was first printed in the Boston *Transcript*, and subsequently reprinted in the *School Review* of Chicago.

ers, coopers, saddlers and leather-workers; and in 1905, for business apprentices, printers and type-setters, lithographers and engravers, building-iron and ornamental-iron workers, machine-makers, mechanics, cabinet-makers, masons, stone-cutters, and carpenters.

The industries represented by these schools are the chief industries of the city of Munich, with one exception, — beer, — for the manufacture of which only higher instruction is given, under other auspices. Munich has half a million inhabitants, and therefore approaches Boston in size. It is not, however, like Boston, a city of great industries and immense business interests, nor is it surrounded by a suburban population like that of Boston. It is a great town, rather than a great city, and life there is admirably described by the German word *gemütlich* — comfortable and companionable.

That, in spite of the absence of great industries and great business enterprise, it nevertheless maintains a unique and wholly admirable system of technical continuation schools, whereby those who must leave school at about thirteen or fourteen years of age are well trained for the several callings on which they enter, is due partly to the general principle universally recognized in Germany, that efficiency in any calling, from chimney-sweep-

ing to watchmaking, requires special training for that particular calling; but chiefly to the energetic and far-sighted city superintendent of schools (*Stadt Schulrat*), Dr. George Kerschensteiner, who saw that the ordinary continuation schools failed to supply a much-needed technical training for beginners in the trades and in business. He also saw that a large part of the education received by the children who had to go to work when only thirteen or fourteen years old was lost for want of further education between that time and early maturity. He also recognized, what we see very clearly, that the ordinary training of the usual continuation schools (corresponding to our evening schools) failed to hold the interest and attention, as well as to meet the pressing needs of most of those for whom they were intended.

He also recognized the enormous importance of keeping young people between the ages of thirteen or fourteen and seventeen or eighteen under systematic educational influence for the moral and social welfare of these young people, as well as for their technical efficiency. He saw that by combining good general education, good technical education, and good education in the rights and duties of citizenship, at an age when citizenship begins to have a real significance to the young, he might

expect to exert on them a permanent influence for good—moral, intellectual, and technical.

He wrote a brilliant paper based on a comprehensive investigation into the existing industrial schools of Europe, and both the results of his investigation and the subsequent paper were published. His paper was entitled "The Education of German Youth for Citizenship" (*Staatsbürgerliche Erziehung der Deutschen Jugend*). It was submitted by him in competition for a prize offered by the Royal Academy for the Dissemination of Useful Knowledge (*Königliche Akademie der Gemeinnützigen Wissenschaften*), in Erfurt. In this paper he answered the question proposed by the Academy, "How can we best train our young men for citizenship during the interval between their graduation from the elementary school and their entrance into the army?" His paper won the prize. Thereupon, he urged his city to transform the existing continuation schools (corresponding to our evening elementary schools) into technical continuation schools. His appeal to the authorities of Munich and of the state (Bavaria) was successful, and the present admirable scheme of Munich's *Fachliche Fortbildungsschulen* (Industrial Continuation Schools) is the result. These schools are, in very many instances, not evening schools. As con-

tinuation-school education is compulsory for three, sometimes four, years in Bavaria for all elementary-school graduates, the law requires employers to give their employees the necessary time — six to twelve hours a week, depending on the school — to attend the continuation schools. Each pupil is required to attend the continuation school planned for the trade or business in which he has found employment. If a youth is not employed in trade or business, he must attend the old-fashioned continuation schools, of which several still exist. It was my good fortune to visit several of these schools during the past winter. Every facility was afforded me by Dr. Kerschensteiner, and especially by his first assistant, Inspector Schmidt, to enable me to see these schools just as they are.

The whole series of schools is too new to enable them all to be equally efficient, yet it is safe to say that no more promising educational scheme has ever been set on foot anywhere; and the success attending the opening of the first of these schools in 1900 led the city to extend them with constantly increasing success, until now there are forty of them.

The technical instruction in these schools is, at present, given in most instances by a member of the trade or business concerned. The remainder of the instruction is given by some of the day-school

teachers, except the instruction in religion, which is given by a Roman Catholic priest, or by a Protestant clergyman, or by a rabbi, each to the people of his faith. In my opinion this instruction in religion is badly given, and quite without valuable effect. But it is required by law.

As it happens that many good trade-workers and business men cannot teach well, the city is encouraging trained teachers to learn the several trades; it grants them leave of absence for this purpose, and some progress in this direction is being made.

Each school is in charge of a committee responsible to the general school authorities, and special pains are taken to secure the best citizens for these committees, and especially to secure the best representatives from the trade or business for which a school stands, and there are always representatives from the teaching force on each committee. In this way each school tends to serve progressively the general and technical ends for which it exists, and is, of course, in each case, kept in close touch with the particular needs of, and the special progress in, the particular trade or business which the school serves.

The following programmes give an outline of the work done in two of these schools: —

CONTINUATION SCHOOL FOR BUSINESS APPRENTICES

Studies	Hours per Week			
	Preparatory year	First year	Second year	Third year
Religion	1	1	1	1
Arithmetic[1]	2	2	1	1
Bookkeeping	–	–	1	–
Banking and exchange	–	–	1	–
Business correspondence, reading[2]	3	2	1	1
Commercial geography and study of materials[3]	1	1	1	2
Studies in life and citizenship[4]	–	1	1	1
Stenography	–	2	2	–
Writing	1	1	1	–
Total	8	10	10	6

[1] All the problems are taken from the actual business in which the pupils of a given group are engaged.

[2] Reading is general, but much of it pertains to business careers and to the particular business in which the pupils are engaged.

[3] The raw materials and also the manufactured product are studied. One group, instead of this, receives instruction in money, banking, and finance.

[4] Personal and public hygiene; duties, rights, and opportunities of the apprentice; behavior; development of trade; transportation and communication in Germany; trade organizations; capital and labor; chamber of commerce, and industrial exchange (*Gewerbe Kammer*); civics, made as concrete as possible.

CONTINUATION SCHOOL FOR CARPENTERS AND CABINET-MAKERS

Subjects of Study	Hours per Week		
	Winter half-year		Summer half-year
	Classes I to III	Class IV	Classes I to III
Religion	1	–	1
Arithmetic and bookkeeping[1]	1	1	1*
Reading and business composition	1	–	1*
Studies in life and citizenship	1	1	1
Drawing			
(*a*) Carpenters	6	6	–
(*b*) Cabinet-makers	3	6	5
Practical Technology[2]			
(*a*) Carpenter	2	–	–
(*b*) Cabinet-makers	2	–	1
Total: (*a*) Carpenters	12	8	3
(*b*) Cabinet-makers	9	8	9

* Alternately.

In addition to these programmes the city publishes detailed descriptions of the work done in each school. Some of these continuation schools are provided with a preparatory year, because elementary-school pupils are obliged to pass only seven grades

[1] As before, the work in arithmetic consists of the actual problems of the trade concerned, here of the problems actually to be solved by carpenters and cabinet-makers.

[2] Study of woods, tools, machines, and their care and uses.

of the eight grades provided for the elementary schools; most pupils who have not taken the voluntary eighth grade are put into the preparatory class of the continuation school.

These programmes are given here in outline only. But they may serve to call attention to the important class of schools which they illustrate, and the study of further details cannot fail to be of use to those whose duty it may be to plan similar schools for their own city and state.

The schools described are for boys, but a large industrial continuation school for girls, with two divisions, — one for household or domestic training, and one for business training, — is already in existence.

Certain conclusions suggest themselves as the result of a study of these schools, namely: —

(1) They solve the problem of how to keep under appropriate educational influence during their period of adolescence that great body of youth who are obliged to leave school when only thirteen or fourteen years old.

(2) There is in them complete utilization of educational opportunity by the pupils. There is no economic or educational waste. Attendance being compulsory, punctuality and regularity of attendance are assured.

(3) The programme of studies for each kind of

apprentice school is strictly limited in scope to an essential minimum of subject-matter, general and technical; and the nature of this subject-matter is well adapted to the end in view, namely, the extension of the youth's education as an individual and as a citizen, and the foundation of progressive interest and technical skill in his chosen calling.

(4) All the teachers, except the shop-work or technical teachers, being trained teachers (elementary-school teachers), the methods are generally excellent, and the results correspondingly good. This is, of course, another reason why there is so little economic and educational waste.

(5) Only youth already in service are members of these schools.

(6) Since representatives of the several trades and businesses are on the governing boards of the several schools, the technical work should be, and probably is, determined by the actual contemporary needs of the several vocations represented by the schools.

(7) The schools embody a well-defined policy that underlies all forms of activity in Germany, namely, that every efficient worker, whether in trade, business, or profession, requires general education and, also, technical preparation for the particular work he is to do.

VI

PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS

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PROFESSIONAL PREPARATION OF HIGH-SCHOOL TEACHERS[1]

WHAT ought a high-school teacher to be, and what training should he have? He[2] should be a man of good personal qualities; and he should possess sound general scholarship, together with superior attainments in some one field of human learning including the useful arts or the fine arts; he should be an efficient class-room teacher and manager of pupils; he should have a professional outlook or horizon; he should look forward to leadership in his profession, and be a useful and helpful influence in the community where his lot is cast.

PERSONAL QUALITIES

Some persons ought never to be teachers. Hence, it is our duty as guardians of the teaching profession to keep such persons out of that profession if we can, whatever their training may be; as well as to encourage and even, on occasion, to persuade others to enter it.

[1] Contributed to the Report of the Committee of Seventeen of the National Educational Association (1907).

[2] For the sake of brevity the masculine pronoun only is used. The entire paper applies to women as well as to men.

To say nothing of such disqualifying and almost unmentionable characteristics as habitual untidiness in person or dress, and chronic bad taste, it is clear that one who has an inborn incapacity for good sense or fine feeling; persistent bad manners; an irritable or gloomy or despondent disposition; a stolid or sluggish mind, incapable of intellectual enthusiasms and a healthy, discriminating optimism; a narrow view of men and affairs — that one who is a mere bookworm or a pedant; or an intellectual or moral prig, incapable of winning or holding the respect or regard of his colleagues or his pupils, an egotist, or a self-seeker — it is clear, I say, that one who is unmistakably burdened with one or more of these disqualifying characteristics ought to be kept out of the teaching profession.

On the other hand, it would be absurd to set up requirements impossible of realization. What we want, first of all, in candidates for the teaching profession are the qualities that mark the gentleman or the lady; then we want physical vigor, moral health and strength, and intellectual attainments and power. In other words, we want good personal qualities, good health, and good general and technical education. If, in addition, we occasionally secure the "born teacher," we shall be as happy as members of other professions are when the occasional

rara avis appears. In what follows, good personal qualities in the prospective secondary-school teacher are assumed. My task is to set forth in some detail what the preliminary training of such a person should be to insure a good degree of efficiency at the outset of his career as a teacher, progressive skill in teaching, and a broadening and deepening interest in and insight into his profession — such a training as we may reasonably expect will promote increasing professional usefulness, in the broadest sense of that term, as time goes on.

SCHOLARSHIP

The first element of the teacher's professional equipment is adequate scholarship — scholarship that is at once broad and deep. This general proposition is, of course, a commonplace. But the sort of scholarship here meant is of such fundamental and far-reaching importance and is so often wanting in high-school teachers, that one need not hesitate to discuss it in some detail. The secondary-school teacher's scholarship must be broad in order that his intellectual sympathies may be broad; in order that he may have an appreciative insight into the resources that he *and his colleagues* have at their command for the appropriate education of every pupil committed to their charge; and his scholar-

ship must be deep enough in some one field in order to enable him to reveal the sense of mastery, the intellectual enthusiasm and power to bring about results, that kindle the same intellectual emotion and the same consciousness of growing power over difficulties in his pupil. The secondary-school teacher, more than any other, must impart richness and breadth to his subject, no matter what it is. His pupil is old enough to appreciate the best he can give him; and unless checked or disappointed, he is usually keen enough to demand, or at least desire unceasingly an extension of the meaning, implication, and application of the results of his own study — of the significance of all he learns. And this demand or desire only the well-equipped teacher can meet.

Not all pupils, it is true, manifest this eagerness to learn, and some are easily satisfied when they do. But a goodly proportion of the pupils have it and in most of them it can be aroused. Once started, it tends to grow. Whether it does grow or not depends on the teacher. Beauties in literature or art not perceived by the pupil, or meanings unsuspected by him; the unsolved mysteries of science as well as its known wonders and established laws, and its far-reaching applications; the fascination of mathematical truth, reasoning, and investigation in elementary as well as in advanced mathematics, to-

gether with the never-ending practical applications of mathematics in science and in the industrial and constructive arts; the constant bearing of history on the development of right conceptions of American public service; the processes and products of manual training, always interesting in themselves but capable of an interpretative significance that insures economic enlightenment and interest — to enable the pupil to realize these and other illuminating, steadying, and inspiring influences is the privilege and the duty of the high-school teacher. And this duty cannot be adequately discharged by one who does not himself possess in full measure the resources of the subject he teaches.

To make this discussion specific, let us inquire now what ought to be the essential minimum of academic training which a high-school teacher should possess.

That our future high-school teacher should secure a good high-school and college education goes without saying; he must secure an equipment in scholarship at least four years in advance of his most advanced pupils. To this general proposition, I take it, every one will agree. But it will be necessary to examine this proposition more in detail.

Every well-educated person should have, first of all, a good high-school education, such as is repre-

sented, in substance, by preparation for admission to a good American college (provided the college allows a considerable range of choice in the studies that may be offered for admission). If all the best American colleges were ready, as they should be, to accept for admission any work well done, and covering at least a year of four periods of prepared exercises per week, we could say that each pupil's work should cover at least one year's work in each of the studies enumerated below as "prescribed studies," together with two or three additional years of work in those studies (or groups of studies) which he prefers, as will be pointed out farther on. Since we have not yet attained the educational millennium, we should approximate the general scheme proposed in the following paragraphs as closely as possible.

PRESCRIBED STUDIES

(The figures mean so many class exercises per week. Double periods are to be understood for the sciences, when laboratory work is required.)

PREPARED CLASS EXERCISES

English	3
Foreign language	4
Mathematics:	
(Algebra *and* geometry)	4
Physical geography	3
Physics	3

American history	3	
Economic history or economics	3	
Government (civics)	3	26

UNPREPARED CLASS EXERCISES

Manual training and drawing	3	
Drawing and the history of art	2	
Music	2	
Physical training	8	(2 each year)
	15	41

From the offering of a good high school the pupil should be required to choose, in addition to his prescribed studies, thirty-four periods of prepared exercises, if he desires the diploma of the school. These thirty-four additional periods should be so chosen that they are devoted chiefly to deepening and extending his knowledge and power in a small number of studies or groups of related studies already undertaken. Such a scheme of work seems to me to guarantee both necessary breadth and thoroughness, so far as these terms are applicable to high-school education. Now breadth and thoroughness are the essential characteristics of a future teacher's scholarship. This programme is accordingly well adapted to the needs of future teachers.

On this basis our future teacher begins his college work. When he goes to college he will select his studies on the same general principles that

determined his choice of work in the high school. If he has not had this satisfactory precollegiate education, if his precollegiate training has been too narrow, say, he will naturally have to sacrifice some of the time he would otherwise devote to his specialty to such studies as will give him sufficient breadth of training. If, on the other hand, his precollegiate training has been too widely dispersed, he will be unable to make such progress in his specialty in college as is here suggested. But neither of these things should happen in good high schools. That they do happen is an evidence of lack of insight and aim on the part of the high-school teachers.

For illustration, I select three typical schedules of study from the number that might be given — one for a teacher of English, one for a teacher of classics, and one for a teacher of physics. Each schedule represents the essential minimum of academic training a high-school teacher of the subject named should possess. Each of these schedules fills the entire time of an undergraduate working at the rate of five full courses (*i. e.* five studies at a time) each year — and no real student ought to attempt more.

No provision is made in these schedules for the study by the prospective teacher of his profession.

As this study is just as fundamental as the teacher's study of "academic" subjects, it is clear that, in my view, undergraduate study for the teacher is not enough. The essential minimum — about four full courses — of professional study, without which a young high-school teacher should never be recognized as such, is accordingly assigned to a year of graduate study. Since, however, it will be impossible, for some time to come, to insist on this graduate year in practice for all high-school teachers, those who find themselves obliged to restrict their training to their undergraduate careers ought to be required to take this essential minimum of professional studies as undergraduates. What this essential minimum is, is given below. Such a compromise between what ought to be and what can be reasonably demanded should, however, be recognized as temporary, and to be outgrown at the earliest possible moment.

For a teacher of English: The student enters college with three years of English, four of Latin, two of Greek, two of German, and one year of French. This is a good linguistic preparation for the prospective teacher of English. If he is less well equipped with Latin and Greek, but has had better training in German and French, he will naturally give more time to the classics and less

time to modern languages, than is suggested below. But his training in classics (in the high school and college together) ought never to be less than four years of Latin and two years of Greek. It is, of course, possible to enjoy English literature without some knowledge of the classics. But if a would-be teacher of English has had no classics at all in his precollegiate training, he must at least know Greek and Roman literature thoroughly in translation. Even so, however, he will find himself handicapped at every turn because he lacks the elementary philological training, without which thorough understanding and appreciation of English are impossible. That a teacher of English ought to possess such understanding and appreciation goes without saying. Hence, the scheme recommended seems to me a safe basis for general guidance.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF ENGLISH

FIRST YEAR

English	Rhetoric and composition.
English	History of English literature. Anglo-Saxon period to the present day.
Latin	[1] Literature. Horace: Odes and epodes; Livy; Terence: Andria, and Phormio:

[1] The alternatives are to be chosen in accordance with the pupil's preparation.

	or, Tacitus: Annals I–VI; Catullus: Selections; and other poets; Horace: Satires and Epistles.
Greek	[1] Literature. Homer: Odyssey, Phæacian episode; Euripides and Aristophanes: scenes from selected plays. Or, Plato: Apology, Crito; Lysias: selected orations; Elegiac, Iambic, and Lyric Poets: selections; Euripides: Iphigenia among the Taurians. Lectures on the history of Greek literature.
History	English.

SECOND YEAR

English	Advanced composition.
English	Seventeenth-century literature.
German	Literature and composition.
French	Literature and composition.
Science	Physical geography or geology; or a half-year of botany and a half-year of zoölogy.

THIRD YEAR

English	Debating and public speaking.
English	Chaucer.
German or French	Literature and composition.
History	Mediæval.
Sociology or Economics	General principles.

FOURTH YEAR

English	Shakespeare.
English	Nineteenth Century.
History	American.

[1] The alternatives are to be chosen in accordance with the pupil's preparation.

Philosophy or Psychology	History of modern philosophy or psychology.
Fine arts	Mediæval and Renaissance.

For a teacher of classics: The student enters college with four years of English, four of Latin, three of Greek, and at least one year of German and one year of French. It is usually impossible to accomplish this desirable preparation, together with other work a high-school pupil ought to do, in four years, and it ought not to be attempted. It can be done in five years, however.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF CLASSICS

FIRST YEAR

English	Rhetoric and composition.
Latin	Livy, Horace, Terence.
Modern Language	Literature and composition.
History	Ancient or mediæval.
Science	Physical geography, or geology; or botany and zoölogy.

SECOND YEAR

English	History of English literature.
Latin	Virgil, sources and literary influence.
Greek	Plato, Xenophon, Lysias, Euripides.
Modern Language	Literature and composition.
History	Modern European or English; or life of the ancient Romans.

THIRD YEAR

English	Study of a period of English literature; or
English	Shakespeare.
Latin	Tacitus, Catullus, Horace.
Greek	Demosthenes, Æschines, Æschylus, Sophocles, the life of the ancient Athenians.
History or Government	American.

FOURTH YEAR

English	Nineteenth-century literature.
Latin	Composition, one half-year.
Greek	Composition, one half-year.
Greek	The life of the ancient Greeks.
Fine Arts	Mediæval and Renaissance.
Philosophy or Psychology	History of modern philosophy, or elementary psychology.

The emphasis on Latin in this course is slightly greater than on Greek, because relatively few teachers of classics in schools are called upon to know Greek as well as they know Latin. But the principle is recognized that a teacher of either of the ancient classics must have well studied the other.

For a teacher of physics: The student has offered among his admission subjects advanced algebra, solid geometry and trigonometry, elementary physics, and at least two years of one modern language, either German or French.

SCHEDULE OF COLLEGE STUDIES FOR A TEACHER OF PHYSICS

FIRST YEAR

English	Rhetoric and composition.
German or French	Literature and composition.
Mathematics	Plane and solid analytics.
Physics	Experimental physics, or general descriptive physics.
Chemistry	Physical chemistry.

SECOND YEAR

English	History of English literature.
French or German	Literature and composition.
Mathematics	Calculus.
Physics	Advanced course in experimental mechanics (one half-year).
Physics	Light: Laboratory course (one half-year).
Physical Geography or Geology	
Drawing	Projections and machine drawing.

THIRD YEAR

History	Modern European, or English.
Physics	Laboratory course in electricity and magnetism. Measurements.
Physics	Heat (one half-year).
Shop Work	Construction and repair of physical apparatus (one half-year).
Astronomy	Descriptive and practical astronomy.
Sociology or Economics	General principles.

FOURTH YEAR

History or Government	American.

Physics	Generation, transmission, and utilization of electrical energy.
Physics	Thesis on a special problem.
Fine Arts	History of.
Philosophy	History of modern philosophy or psychology.

PROFESSIONAL STUDIES

So much for our student's general and special scholarship. The very fact that he is to be a teacher implies that he must be something more than a scholar, important as scholarship is. Scholarship is for him not only an end in itself, but a means to an end — that end being the use to be made of it in the interest of his pupil. This interest includes the exceedingly important discovery of the pupil's dominant tastes and capacities and the progressive shaping of his education in accordance with that discovery.

This conception of the teacher's scholarship as an instrument in his hands for the good of his pupil is the teacher's conception, not the scholar's. To endeavor to attain it is the duty of every teacher. Ultimately it will determine his permanent attitude toward his work as a teacher — not merely to this or that part of it, but all of it.

Now this professional attitude is very rarely the outgrowth of scholarship alone; indeed, scholarship may even prevent its development. Very few

young graduates have even an inkling of it; and most young doctors have been prevented from acquiring it by highly specialized "research" in the field of pure scholarship. While these men are studying for their degrees, scholarship is only an end in itself. Incidentally, if they are preparing to teach, they know, of course, that scholarship is an indispensable part of their professional equipment. But this knowledge alone is quite as apt to promote a wrong attitude toward their work as a right one. It often leads a young scholar to regard the work of teaching as a necessary evil, to be borne only because it may enable him to pursue further the research which he loves. When this does not happen, when he really applies himself with some zeal to his work as a teacher, it often leads to an exaggerated or at least disproportionate estimate of the educational value of his specialty, and to corresponding indifference to the educational value of other studies. And the greater the degree of specialization, the greater the danger is. This is one reason, I suppose, why the doctor of philosophy who wishes to teach in a high school is sometimes justly regarded with suspicion by principals and superintendents. And it is doubtless also one reason why the German states require would-be secondary-school teachers to pass examinations in three

fields of study — one "major" and two "minors"; and also why relatively few German secondary-school teachers have secured the doctor's degree.

My point is, once more, that the teacher is not merely a scholar, important as scholarship is. To be available for teaching purposes, scholarship must have been acquired or at least overhauled from the teacher's point of view. The scholar must possess his scholarship in a new way. He must examine it with a view to attaining a clear conception of the educational resources of his specialty and an equally clear recognition of its limitations. He must, for example, have a definite answer to these two questions: (1) what ought the pupil to get from this subject under my guidance; and also (2) what can he by no possibility derive from it? The teacher of history, for example, may expect his pupil to derive from history social insight and interest, and some political enlightenment. But it is clear that social insight and interest and political enlightenment do not constitute more than one element of the complex whole we mean when we speak of a good citizen; to say nothing of the fact that, at a given time, even social insight and political enlightenment cannot be secured through history at all, owing to the pupil's immaturity, or unawakened social and political comprehension. Hence, the

teachers of mathematics, science, languages, the mechanic arts, and the rest, have important subjects to teach as well as the teacher of history; and at a given time any one or several of them may be able to secure for the pupil a more adequate revelation of the world and a clearer self-discovery of the pupil than the teacher of history can secure. That is to say, the history teacher's business is to see that the world is revealed to the pupil from the historical point of view, while recognizing the worth and efficiency of other studies to the final end at which all are aiming — the pupil's knowledge of the world and of himself, and a command over both appropriate to his age and opportunities. The history teacher will thus realize that this historical revelation of the world, important as it may be in itself, is not the whole revelation. Just what this historical revelation is in its breadth and depth, it is the history teacher's professional duty to know; for this knowledge will determine nothing more or less than his *conscious aims* as a teacher — will determine the richness or poverty of his teaching, and the significance or want of significance of the subject for his pupil.

It thus appears that conscious aims, clearly and discriminatingly defined, constitute an important part of the teacher's professional equipment, and

that scholarship alone cannot be relied upon to supply them, although it is impossible to realize them without scholarship. How are they developed? This question will be answered presently. But first something more needs to be said about them.

By implication it is already clear, from what has gone before, that the teacher's aims are both general and special. Up to this point, however, the teacher's special aims — *i. e.* the results he hopes to attain through his specialty — have received most attention. But his responsibilities do not stop with a clear conception of what the pupil should learn of a given subject under his guidance. He must know *how to teach his subject so as to realize his aims.* He must also understand his pupil as a child and youth and not merely as a pupil of history, or literature, or science, or manual training; he must be able to guard and promote the physical as well as the mental and moral welfare of his pupil; and he must be able to estimate the significance and value of the work of the school as a whole in providing for its pupils the most salutary physical environment, and appropriate participation in all the worthy interests of life, *i. e.* satisfactory preparation for the pupil's maturity, for his work and for his leisure.

The teacher must therefore know how to teach

and manage children and youth, must know the nature of children and youth, and the conditions of their satisfactory development; he must know whether the school in which he works is adapted to the ends for which it exists — in a word, he must have professional insight, interest, and skill in his own work, and he must have a professional horizon wider than his class-room, or his school.

The teacher's special aims and his power to realize them — his technical skill and his general professional insight and interest, and his professional horizon, he can derive only from the study of his profession. The lawyer, engineer, or physician has professional insight, interest, and skill which every one recognizes, appeals to in case of need, and respects as valid when obtained because each of them bases his professional career on a body of organized facts and principles pertaining to his profession and on an incipient command over them, and he perfects this knowledge and skill by practice. That is to say, each enters on his chosen calling with a developed professional attitude, *i. e.* with a knowledge of his professional responsibilities, and developed confidence in his power to discharge them. Such an attitude must be based on a prolonged study of the resources and the problems of his profession, and as much practice as possible

in formulating legal advice and pleading cases; in making plans for routes, structures, or machines, and in executing those plans; in diagnosing bodily conditions, and prescribing treatment.

Now the teacher's educational aims, insight, interest, and skill and his professional horizon — the range of his professional efficiency — determine his professional consciousness, just as the corresponding equipment of the workers in other professions determines theirs. Such a professional consciousness is the professional attitude. It is the outgrowth of consciously possessed and tried resources. It makes the worker painstaking; prompt without precipitation; aware of the difficulties that beset his path, but courageous in meeting them; willing to experiment but not without adequate cause; judiciously aggressive in proposing new policies, and able to defend them convincingly in the face of all kinds of opposition.

Such is the desirable attitude that we have a right to expect every teacher to attain. That too many teachers now in service have it not is due to the fact that they have not taken pains to acquire it, they have not seriously studied their profession. Until they do, it is impossible to expect that their employers or the general public will acknowledge their superiority over the lay public in matters

educational; for, in general, no such superiority will exist.

Of what, then, does the teacher's study of his profession consist? First of all, as has been said, the teacher must know how to teach — he must command the technique of his art; he must know how to teach his subject and manage his class. At this point I may be pardoned a brief digression.

It is still believed by otherwise well-informed persons that any scholar is *ipso facto* a teacher, or, at least, that he can easily become a teacher — a good one — by practice only. (It would be more correct to say by floundering!) This view is held, with a conspicuous disregard for the testimony of experience, by many college professors, who are often called upon to recommend young graduates as teachers, but not infrequently by the employers of teachers — particularly private-school or endowed-school principals and trustees. In this paper there is no need to combat this error; and I content myself with reminding you, once more, in passing, that in spite of recent progress it still persists — it still interferes with the development of *training in teaching* in our colleges and universities. Inasmuch as colleges and universities are the source of supply of the great majority of our high-school and private-school teachers, the persistence

of this error must be reckoned with when we seek to secure proper training for high-school teachers.

But to return. Every one, whether superintendent, principal, teacher, or layman, knows that bad teaching defeats the very ends for which the schools exist and is the source of enormous waste of money, time, and strength. It makes the most attractive study dull; bewilders, misleads, and repels the most earnest and capable pupil, and so, as just intimated, perverts the educational opportunity willingly and generously provided by the public, or expensively maintained by private means.

These are obvious commonplaces. But it will be necessary to insist on them until our college-bred scholars and specialists, and many of those who employ them as teachers, as well as most of those who recommend them for employment, finally divest themselves of the traditional error already referred to, that scholarship, and particularly specialized scholarship, involves teaching power as a matter of course. As long as this traditional error persists in spite of the evidence of experience — for I venture to say that no single fact of the high-school teacher's equipment for his work has been so often established by experience as that scholarship and teaching power do not necessarily go together — it will be necessary to insist that teaching

power, like scholarship, must be acquired with painstaking care. True there are "born teachers" whose native gifts enable them to teach well without instruction; but most teachers in the past have not been born teachers, and most of them never will be. In the teaching profession, as in other callings, the genius is found only occasionally; and even he gains enormously by the careful study of every detail of his art or his profession. It is plain that the world's teaching must be done in the future as it has been in the past, not by geniuses chiefly, or even largely, but by persons of ordinary endowments; and experience has shown that all such persons need to make the most of their natural gifts, whatever they are, by careful training.

The young graduate without technical training will naturally follow the example of his college teachers, since their teaching is fresh in his memory.

If those teachers happen to have been good models, the neophyte of good natural teaching power will, ere long, beat out a fairly successful routine, although at the expense of his pupils, and more or less damage to his subject. If a young language teacher's model, for example, has emphasized the philological aspect of his subject rather more than its literary content and form, his pupil — our young teacher — will be likely to over-emphasize the same

thing in his teaching, in spite of the well-known fact that literature and not the refinements of syntax and long excursions into comparative grammar attracts most high-school pupils; if his model has been an inspiring literary interpreter as well as a reasonable grammarian, our young teacher will similarly be likely to address himself by preference to literary interpretation. The fact is, however, that without specific instruction in the various educational resources of his subject, the educational possibilities of that subject are not consciously recognized; and, what is even more important, the varying educational values of those resources are not seen to differ from each other, and to have varying values for different pupils. For example, I once heard a secondary-school teacher spend nearly the whole of one class exercise on three illustrations of a very unusual use of the ablative case by Cicero — one of the three having occurred in the lesson of the day.

So the prospective teacher must be led to overhaul his scholarship from the teacher's point of view, in order to become aware of its educational possibilities and their relative importance; and then he must secure a training in theory and practice that will enable him to work systematically and progressively toward realizing these possibilities in his

teaching. Such training, when successful, develops the first requisite of a professional attitude, an attitude which, as has been said, is dependent on the consciousness of power to teach and, incidentally, to govern pupils and classes, an incipient command over the technique of the teacher's art. This training naturally consists of directed observation of good teachers, instruction in methods, and carefully supervised practice teaching in the classroom, under normal conditions.

But, as has been said, to teach and govern well the teacher must know his pupils as well as the art of teaching and governing. He must know the fundamental characteristics of children and young people, in order that he may more appropriately become their guide and interpreter, and not merely their judge and taskmaster. And, of course, he must acquire the habit of studying every pupil, for his interpretation and guidance are effective only when they meet the needs of each individual. The teacher must, therefore, learn as much as possible about the nature of children and young people, and he must acquire the habit of studying each individual, and of shaping his instruction and management in real harmony with both the general nature of children and youth and the particular characteristics of each pupil. That is to say, he must acquire the

attitude of the trained and sympathetic student of the minds and hearts of all his pupils, and their individual responses to his influence. Incidentally all his professional training promotes this end. But it is directly arrived at in courses on educational theory (general principles of education, school hygiene, and educational psychology, particularly the psychology of mental development in children and adolescents).

But the teacher must also have a professional horizon. He must know his school as well as his class. He must see his own work in relation to that of his fellow teachers; he must be able to cooperate with them, for the pupil's sake, on the basis of a good mutual understanding of the total aim, atmosphere, classwork, and collateral activities of the entire institution as an educational force; and he and they must be able to work together for the progressive readjustment of the educational opportunities the school affords, and the results it achieves to the actual needs of the pupils and of the community, as they appear. That is to say, he must study the high school as a social institution. He must know its origin and its development. From its vicissitudes he will learn much that will enlarge his professional horizon and make him a more intelligent and constructive critic of its present

organization, its relation to the elementary schools and to the college, and its actual contemporary efficiency. Such training should be given in a course providing for a thorough study of the secondary school, particularly the public high school.

But the teacher's professional horizon is still too narrow if it is limited to the educational activities of his own school and his own time. His profession has a remarkable history, of great intrinsic interest and professional significance. The history of education is the history of culture. It covers the varying educational ideals of important periods in the history of progressive nations, the social (political, religious, economic) conditions which gave rise to these ideals, and the institutions devised to embody these ideals, up to the present day. These ideals are also embodied in educational writings, and these are accordingly sources of fruitful thinking on educational theory and practice. To study the history of education is, accordingly, to pass in review the world's thought and activity in the field of education, and to reflect critically on its adequacy as measured by the standards adhered to in any particular period. To do this is to acquire a professional horizon that extends far beyond the confines of a particular classroom or school, and inevitably promotes the habit of applying thought-

ful consideration to all educational problems or activities — and this is, as we have seen, the professional attitude which we are seeking every proper means to secure for every teacher. A good course in the history of education is, accordingly, indispensable to the essential minimum of professional studies every secondary-school teacher should pursue.

From the foregoing it is clear that this essential minimum should consist of the following four courses: —

(1) General Principles of Education, one half-year.
School Hygiene, one half-year.
(2) Educational Psychology, one half-year.
Methods, and Practice Teaching, one half-year.
(3) Secondary Education — Particularly the Public High School, its Origin and Development; Relation to the Elementary School and to the College; Present Aims, Organization, and Work. Foreign Secondary Schools.
(4) History of Education from the Time of the Ancient Greeks to the Present Day.

It is clear that a teacher's training is only well begun by such a course of study as has been outlined in the preceding pages. His growth must continue with the practice of his profession if he would continue to be efficient as a teacher, and increasingly useful as a member of an important profession whose interest he ought to be able to promote

by his example, his voice, and his pen; and if he would be counted among those who not only render efficient vocational service, but can be relied on to coöperate with others in at least one of the many community interests lying entirely outside his vocation.

Through the teacher's ministration the pupil is to be led to understand and enjoy this wonderful world of ours — to possess some command over its resources, to find in it the particular thing of worth that he likes best, and to look forward to the kind of work that he can do best. The pupil is to acquire knowledge and the power to use it; his heart is to be touched and taught to respond habitually to noble emotions of "virtue, honor, love, courage, and magnanimity"; he is to see and love beauty as well as noble emotions and goodness; he is to be trained to act in harmony with his insight, his warm heart, and his cultivated taste; and so to be and do his best in everything he undertakes. This is the teacher's ideal. All would like to approximate its realization, and few indeed would not try to realize it as nearly as possible, once it is seen. There are many teachers, fortunately, who cherish such an ideal, consciously or unconsciously, and who adhere to it and maintain an attitude of discriminating optimism amid all the trials, misunderstandings, discourage-

ments, and disappointments that fall to the lot of every worker. Such teachers rejoice in their partial successes and derive from them the courage and good will that make for ever increasing efficiency. These are the chosen few — chosen by nature and a fortunate combination of circumstances to do the teacher's work.

Unfortunately, however, the conditions under which too many teachers carry on their work are a constant menace to the maintenance of the teacher's ideal, and not a few who have it at the start harden under them. Under the stress and strain of a deadening routine for small pay, or an unappreciative public, or narrow or ill-bred official superiors, or some or all these combined, such teachers are in danger of losing the inspiring influence of their ideal, and of forgetting it entirely. In any case, every teacher's inspiration is derivable from two sources — his equipment of scholarship and his professional insight, interest, and skill; and we cannot urge too strongly or too persistently the appropriate recognition of the training on which this inspiration depends until it ultimately wins, wherever found, thorough appreciation and appropriate material rewards.

VII

SCHOOL INSTRUCTION IN RELIGION

SCHOOL INSTRUCTION IN RELIGION[1]

In order to study the aims and scope of religious education one turns naturally to the utterances of those who are teachers of religion, and of others who have given serious thought to religious education, whether teachers or not. For statements of Protestant views on religious education I am indebted chiefly to the proceedings of the Religious Education Association. For statements of Roman Catholic views I am indebted to letters received in answer to my requests for information from Rev. L. S. Walsh of Salem, Massachusetts, and from Brother Peter, head master of La Salle Academy, in Providence, Rhode Island, and to a paper by Rev. Dr. Pace of the Catholic University, Washington, D. C., published in the proceedings of the National Educational Association for 1903.

Turning to the proceedings of the Religious Education Association, and disentangling the aim of religious education from the discussions found therein, that aim may be formulated as follows: The inculcation of the spirit of Christ, *i. e.* of an all-pervading and controlling love of God and of

[1] Printed in *Education*, September and October, 1906.

our fellow man. This aim is to be achieved in such a way that the spirit of Christ becomes an ever-present reality in the thought of every individual—the determining influence in his attitude toward God and man, and in his conduct.

The means of this education are found in (1) a wise use of the Bible, and particularly in the life and teachings of Jesus and his disciples as contained in the Bible, and (2) insistence on the conditions essential to the growth of the spiritual nature, *i. e.* an environment in which the life of the spirit is revered, and in which the instruction in spiritual things finds constant exemplification and application.

The emphasis throughout the discussion of these aims is generally on the principle that religion is a growth, and not the immediate result of a direct inculcation of spiritual truths, no matter how conscientiously this may be attempted; and hence that religious education is effective only when it results in a progressive recognition by each individual of religion as truth, solace, inspiration, and guidance in his daily life.

Although this summary gives, I think, a just idea of the aims of religious education as viewed by the writers referred to, it does not give any idea of the fervor and of the great sense of the impor-

tance of religious education with which all their discussion of that subject is imbued. But the earnestness and enthusiasm of the writers on religious education must be borne in mind if one would have a fair idea of the full significance of their utterances.

The essential features of Roman Catholic statements of the aim of religious education seem to me to be: To teach the Creed of the Roman Catholic Church as the only true basis of religion and of conduct in harmony therewith, and hence to inculcate reliance on the authority of the Roman Catholic Church on all matters of religion and morals. To this end the catechism is the chief means employed. In Catholic discussions of religious education we find even greater fervor, enthusiasm, and conviction of its importance than in Protestant writers, and there is similar emphasis on conceiving religion as a growth to that found in the Protestant discussion. But in addition to the conditions of growth laid down by Protestant writers, there is very great emphasis on obedience to the authority of the Roman Catholic Church, and on the pious observances which it prescribes.

With these statements of the aims and scope of religious education in mind, let us see to what extent, if at all, they are possible of realization in our public schools through explicit or formal instruction.

The summaries given above make it plain that both the great divisions of the Christian Church have substantially the same aim. In spite of obvious and important differences in the formulation of that aim it is clear that both Roman Catholics and Protestants seek to imbue their children with the spirit and faith of Christianity, and to render this spirit and faith a controlling influence in their lives. Further, the advocates of religious education justly feel that we can no more expect fully developed Christian sympathy and insight without special training than we can expect æsthetic insight and interest, or scientific insight and interest, or historical insight and interest without special training. They know that, in general, a human instinct or interest that remains uncultivated in youth will attain, in general, at best, only partial or stunted development; and, at the worst, that it will be so quiescent as to be virtually non-existent, and hence will have small hold, or no hold at all, on an individual in later life.

Now, in this country, nearly every one feels that the spirit of Christianity, and especially the moral teachings of Christianity, are among the most precious possessions of our civilization. The perpetuation and fuller realization of this spirit and of these teachings, as dominating influences in

human life, are so important to the progressive happiness of the race here on earth, to say nothing of the hereafter, that all men agree, no matter what extremes of belief or unbelief may separate them in other respects, that every legitimate effort should be made to perpetuate and disseminate the spirit of Christianity and its moral code as widely and as effectively as possible. On this point there is no disagreement worth considering. And yet I am one of that large number who do not hesitate to declare as emphatically as they can that explicit, formal instruction in religion in the public schools is undesirable, impossible, and unnecessary. And in support of this assertion I beg to present the following considerations.

Although there is substantial unanimity concerning the ultimate aim of religious education, great and mutually irreconcilable differences of opinion prevail as soon as details are broached, and we enter on a consideration of the means and methods to be employed. On the one hand, we have the Roman Catholic Church, whose teaching of Christianity is authoritative and dogmatic; on the other, the Protestant sects, whose teaching is based directly on the Bible, and who agree only in refusing to accept the peculiar dogmas and authority of the Roman Catholics, and differ fundamen-

tally on other points of doctrine; each sect more or less tenaciously maintaining the truth of its own special interpretation of the Bible and its teachings. Further, while Catholics and Protestants agree that the ultimate aim of religious instruction is the inculcation of the spirit of Christianity as set forth in the Bible, in practice they do not agree in their respective interpretations of the Bible, which is the foundation of the teachings of both. One must remember that the Catholic and Lutheran catechisms are based on the same Bible. To the same source — the interpretation of the Bible — we may trace the differences between the Protestant denominations.

Now these differences are divisive in the extreme. They are fundamental, insuperable, and hence permanently divisive, so far as non-Catholics and Catholics are concerned; and hitherto they have been insuperable also, and, in my opinion, will continue to be for a long time to come, so far as the Protestant sects are concerned. Note, for example, the bitter contest based on differences in religious faith between the Church of England and the Dissenters, in England, for possession of the schools; and in our own country the multiplication of Protestant sects. All of these would be unwilling to accept the religious teachings of another sect, denomination, or church, though perfectly willing to tolerate

them, so long as there is no attempt on the part of one of them to secure the acceptance of its tenets by another.

If further proof is needed, we find it in the fact that according to the late Chancellor Walter B. Hill, of the University of Georgia, "so far as the record discloses the motives of the complaining parties, every law-case in which a rule of exclusion or limitation on the use of the Bible has been invoked has been brought, not by an agnostic or infidel, objecting to religious instruction, but by a sectarian, objecting that the teaching was not in accord with the tenets of his sect." I have endeavored to verify this assertion, and so far as I have been able to follow the records I can corroborate Chancellor Hill's statement. Chancellor Hill continues: "This is the situation which will some day bring the blush of shame to the most bigoted sectarians. It looks back to the past, to the period of the Middle Ages described by Judge Bleckley, 'when every good man thought it his duty to burn some man who was better than himself.' In those days each orthodoxy said to every other-doxy,

> "'Quisquis qui credit aliter
> Hunc damnamus aeternaliter.'" [1]

As a matter of history, we know that instruction

[1] Walter B. Hill, N. E. A., 1904.

in religion was originally universal in our public schools. But owing to the growth of democracy, immigration, the multiplication of sects, and the spread of "unbelief," it was ere long impossible to satisfy the patrons of the schools with the instruction in the Puritan catechism and Puritan interpretation of the Bible, generally. Consequently, religious education was relegated entirely to the home and the churches, where each family could secure then and can still, if really in earnest, the particular form of religious instruction which alone, to each, seems instruction in religion.

As already remarked, the differences in creed that then existed still exist in all their early force between the Roman Catholic people, on the one hand, and the Jews and the people of all the Protestant denominations on the other; for the creed of the Roman Church is unalterable. And these differences exist also in varying degrees between the creeds of all the Protestant churches. In spite of the welcome and rational tendency of recent times to minimize the differences between the creeds of the evangelical churches, it is still true that the Methodist or the Baptist regards his own form of the Christian faith as nearer the true faith than that of the Episcopalian; and it is safe to say that most members of all three of the sects named would

not be contented with the rudimentary creed of the Universalist or the Unitarian; although the Universalist and the Unitarian, like the Methodist, Baptist, or Episcopalian, believes himself to be a Christian.

I need hardly say that my repeated references to the differences between these Christian sects is not to call attention to the differences as such, but to point out that while there is an undoubted tendency toward a closer union of all Christian churches, and hence a nearer approximation toward unanimity of creed than we have ever had before, we are still so far from that unanimity as to make it just as impossible to satisfy Catholics, Unitarians, Episcopalians, Methodists, and Jews, for example, to say nothing of unbelievers, with the same form of religious instruction as it was when the doctrinal differences between the sects were dwelt upon more than they now are. The reasons which induced our forebears of the recent past to insist on excluding instruction in religion from the public schools are therefore still valid.

It is such differences in creed as are here indicated, and the attitude of the several denominations toward the whole body of Christian faith, including, of course, the interpretation of the Bible, — not merely those named, but all of them, — that have

led to the exclusion not only of all specifically doctrinal religious instruction from our public schools, but also, in many places, of the use of the Bible itself in opening exercises; and hence, also, to our great loss, of the study of the Bible as literature.

An examination of legal provisions on the reading of the Bible in the public schools shows that the laws vary all the way from requiring some portion of the Bible to be read daily in the public schools to absolute prohibition of the reading of the Bible. The general situation seems to be that the law permits the reading of the Bible in the schools in most communities if no one objects, but forbids it if objection is raised.

Quite apart from the legal aspects of this whole matter, there is an important reason why we have lost the study of the Bible in our public schools. The Bible is, of course, regarded by many people as a peculiarly inspired book, as literally the word of God to man. It is, therefore, by these persons regarded as a book to be revered. To look upon such a book as amenable to merely literary interpretation is by them regarded as sacrilege; it must be read with an attitude of mind quite different from that with which any ordinary literary masterpiece is read and appreciated. That is to say, it must be approached only with a religious purpose,

and in the attitude of a learner who is prepared to accept, in advance, without hesitation, qualification, or reservation, as literally true, and spiritually satisfying, all that it contains.

While substantially this view was almost universally held by conscientious Christians, as it was down to within very recent times, it was only natural that the Bible could not be studied as literature is studied — as, for example, Chaucer, or Shakespeare, or Macaulay, or Emerson is studied. While this extreme view has been recently modified, so far as many enlightened men and women are concerned, it is still widespread enough, even in its modified modern form, to prevent the possibility of the study of the Bible as literature in our public schools of all grades, in most if not in all parts of the country.

But if it were not impossible, for the reasons already set forth, to give explicit and formal instruction in religion in the public schools, it ought not to be given for another reason. As has been already pointed out, there are few divisive influences in human society that cut deeper and entail greater rancor than differences in religious belief. The public school is, and should be, our greatest unifying influence. It is the function, and it is the glory of our public school, that it is the most successful instrument yet devised for preparing

people of every sect and of no sect, people of every social grade, and people of the most diverse nationalities, for progressive citizenship in our American democracy.

This work of the public school is so important that it is almost impossible to overrate it. It is done continuously and unobtrusively year by year for the oncoming youth of each generation of our native born population. And it is done, with peculiar efficiency, for hosts of children of foreign birth or of foreign parentage who are educated in the public schools. Many of the immigrant parents have false notions of the meaning of government, and equally false notions or no notions at all of the rights, duties, and privileges of citizens under a free government; but very many of them have narrow, various, and tenaciously held religious faiths; and many of them have learned by bitter experience what evils follow in the wake of religious differences. At the same time they hold tenaciously to their several faiths. To introduce any religious teaching whatever into the public schools would be to rouse in the minds of the immigrant population, on the threshold of their adopted country, the suspicion which would soon ripen into conviction that here, too, the school is the instrument for inculcating mutually hostile religious beliefs; for alienating

class from class, through the alleged concern for religious welfare, and so to perpetuate the evils, to escape which was for many a great reason, for some the chief reason, for leaving home and kindred and all the ties that bind men to the country of their birth. This would be to destroy at a blow the faith that we and they have in the sincerity of our purpose to guarantee to every upright citizen the proper appreciation and enjoyment of civil, political, and religious freedom, and to prepare him for this freedom by education.

That is to say, until men have become so far enlightened as not to insist on the peculiar validity of particular creeds as formulated by different churches, and so far emancipated from ecclesiastical control as to insist on the same spirit of inquiry, and the same exercise of reason in dealing with biblical and theological themes, as in dealing with other matters, it is undesirable and impossible to introduce explicit and formal instruction in religion into the public schools.

Thus far I have endeavored to show that school instruction in religion in the public schools is undesirable and legally impossible. It remains to point out why it is unnecessary. This is a Christian nation. Directly and indirectly, religious truth, sentiments, aspirations, and observances recur con-

stantly; and in practice these truths, sentiments, aspirations, and observances are not avoided, evaded, or slurred. Nearly every story, or reading-lesson — all literature used in our schools from the kindergarten through the high school — is permeated by the spirit of Christianity, and is a graphic portrayal, either directly or by contrast, of the effect of Christian ideals or of their opposites on human hearts and conduct. "The weekly recurring holidays of Sunday, and the annual holidays of Thanksgiving, Christmas, and Easter, make a recurring religious impression. . . . To state the situation in other words, the enveloping atmosphere of education in a Christian state and nation is Christian. But the chief influence of this character is yet to be noticed. It is in discipline. If it were possible to separate education into the two divisions of knowledge taught and conduct inculcated; if we were denied the privilege of blending the training of intelligence and the training of character; if we were put to the necessity of surrendering one or the other, I suppose no one would hesitate for a moment to say: 'We will sacrifice the knowledge of the schools and keep their discipline.' Illiteracy, fearful as it would be, is preferable to anarchy. Now, the discipline of education in a Christian land is Christian. Discipline requires, in the first place, personal abstinence

from evil practices; and in the second place, it regulates the conduct of individual pupils in relation to their fellow pupils by the principles of Christian ethics; not ideally, of course, but with such practical approximation as is possible under existing conditions. To be effective, discipline must not be coercive, but must win the affection and the will. If the child never heard in school one word colored by moral sentiment, he could not possibly pass through its discipline without training in individual and altruistic morality; and the morality is that of the Christian type as distinguished from other types. . . . When, therefore, we hear the cry for 'Christian education,' our answer must be that given to the crew of the vessel which signaled to a passing ship that they were in want of water. Without knowing it the distressed crew had drifted into the waters at the mouth of the Amazon, and the only help they needed was given in the words signified in the reply: 'Let down your buckets.'" [1]

It is clear, therefore, that our public schools are not godless, or non-Christian, and any attempt to make them appear so is, in my opinion, based on ignorance or willful misrepresentation. For, as has been seen, the pupils of our public schools are

[1] Quotations in this paragraph are from W. B. Hill, N. E. A., 1904, 251.

not only immersed in an atmosphere charged with Christian influences, but their minds and hearts respond daily to Christian facts, traditions, feelings, and observances that permeate every detail of the studies pursued, especially history, literature, and art; and their conduct is directed by Christian motives.

But it is true that religion as a subject of study does not receive a separate time allotment, as in the schools of Germany — where, by the way, after studying it about two years ago, and its effects, as viewed by many of the teachers with whom I talked on the subject, and as revealed in the growing apathy to religion among the people, I strongly feel that it does not serve its purpose, but is subversive of it. I quote a memorandum or two from my note-book. A state inspector of schools said to me, "The domination of the church is our greatest obstacle in the path of educational progress." And the principal of a large city high school said, after I had told him we had no instruction in religion in our public schools: "You are quite right. Never permit it. It is subversive of the very ends for which it is maintained in our schools." And a "gymnasium" teacher of prominence summed the whole matter up admirably, to my mind, when he said at the end of an earnest conversation on the subject:

"In the lower grades it is without effect, and in the upper grades it breeds hypocrisy."

Nevertheless, it is true that for those who are really concerned about specific and formal instruction in religion for their children, the incidental instruction which I have emphasized as all-pervasive in the spirit and work of the public schools is not enough. For myself, considering the present transitional state of religious belief, the immaturity of the pupils, and the consequent impossibility of assimilating religious truth until the need of it is a life experience of the pupil, and hence also the unwisdom of attempting to inculcate any form of religious belief during childhood and early youth; and considering, further, the unsatisfactory character and results of most of the religious instruction which I studied in many schools where instruction in religion is universal — in Germany — considering this, I say, I feel confident that, with one exception, all that can be wisely attempted is accomplished by the exceedingly valuable incidental instruction in religion which has been pointed out as universal and incessant. I am confident of this because the pupil thus learns gradually — the only way in which he can really learn them — the most important lessons instruction in religion has to teach, namely: the tremendous hold the Christian religion

has had, and still has on the people of Europe and America, and its immense influence in shaping the civilization into which he is born; and the Christian conception of his own privileges and duties as child and man.

The one exception to which I have referred is this. Incidental instruction, however valuable, does not provide for an adequate acquaintance with the Bible. That knowledge of the Bible is greatly lacking in the American youth of to-day, no one will deny. That this ignorance of the Bible is a great misfortune is well-nigh universally acknowledged. Whether we regard the Bible as indispensable to the full understanding of literature, or whether we regard it as the inspired word of God, or whether we look upon it as both a priceless literary treasure and the foundation of religion, most persons agree that ignorance of the Bible is deplorable. And yet it is as unnecessary and undesirable to teach the Bible in the public schools as it is to give any explicit instruction in religion.

And the reason for this assertion is not far to seek. We have an institution charged by society with the duty of satisfying the religious interests of mankind — the church. If the church does not do its duty in this respect the remedy is not in shifting that duty to the school, but in insisting

that the church shall do its duty, and in pointing out how that duty may be successfully done. In the first place, it must be borne in mind that we are here concerned with the supreme duty of the church — the perpetuation and dissemination of religion; and to that end it must educate. That it does not do so satisfactorily is its fault, not its misfortune. It is true, of course, that the family as well as the church is charged with the duty of religious education, but the family has other equally important duties, while the church has not. In the necessary division of labor the church has been charged with the special task of guarding and promoting religious growth. If it does not do this, *i. e.* if it does not meet the ends for which it is established and maintained, it must die, and it will deserve to die. It may seem presumptuous for a layman to endeavor to point out to the church how to do its duty, and yet I do not think it is. In any event, I shall make the attempt.

Every church or group of churches of the same denomination should maintain a Bible school, and should see to it that the instruction given therein is given by persons who possess thorough knowledge of the Bible, insight into the spiritual and educational needs of children and youth, and skill in teaching, *i. e.* the instruction should be given by

well-trained teachers. For such teachers we should be able to look to the divinity schools. At present there is little prospect that the divinity schools seriously entertain any such proposition. Is it not strange, even marvelous, that with a widespread demand for the religious training of the young, the undesirability and legal impossibility of getting this instruction into the public schools, and the obvious inability of the family to provide this instruction adequately, the one institution specifically charged with the training of teachers of religion should consider it no part of its duty to provide properly trained religious teachers for the young? It is marvelous, but it is true. At any rate, there is no evidence that it is not true, and in the absence of such effort on the part of the divinity schools one must conclude that they are either ignorant of their duty or neglectful of it. It may be, of course, that divinity schools have not provided training for teachers of religion for the young, because there has been no serious demand that they should.

Now who shall take the initiative in this matter? To this there is but one answer — the clergy. The pastor is or should be the one person charged with the responsibility of securing in every possible way the religious welfare of his people — including suit-

able instruction in the Bible. If, therefore, pastors and people are in earnest about securing instruction in religion, and especially a knowledge of the Bible, and if the pastors take the lead in pointing out how this may be done, there is little doubt that it will be done. I am not unmindful of the fact that a few churches, here and there, are doing something of importance in providing trained teachers for their Sunday schools, nor do I forget the Hartford School of Religious Pedagogy. These are, however, only faint and isolated lights in the universal darkness.

What I mean by a Bible school, then, is not a "Sunday school." I have already pointed out that we need well-equipped, professionally enlightened teachers to do the work of the Bible school. Such teachers alone would make an unmistakable contrast between the Bible school and the Sunday school. But the differences are more comprehensive. The Bible school would be properly graded; it would imply the attendance of each child of elementary school age for about an hour a week, and of older children — say, after twelve years of age — for two hours a week. Of such a school the pastor should be the general superintendent, sustaining about the same relation to it that a superintendent of a public school system should sustain

to the schools of his system—*i. e.* he should be the professional adviser, general inspector, and leader; should preside over all faculty meetings of the school, and be its chief executive in all administrative affairs. The school should further have a paid corps of teachers, including a principal, who should be responsible for the administration of all internal details of management and work, and whose equipment and training for their work have been provided in the manner indicated above.

At this point I have no doubt an objection will be urged. It will be said that school children are already overburdened, and hence this proposition of a Bible school is impracticable. To this objection there are two substantial replies: First, that there is no proof that the children of the elementary schools are overworked, with the exception of single cases here and there under the management of a routine teacher of the old school, or of an unwise superintendent who still believes that education is synonymous with drill in book geography, the useless parts of arithmetic, and formal English grammar; and such cases are happily growing fewer every year. If there is proof that elementary-school children are overworked I have not seen it. That high-school pupils are sometimes overburdened in the attempt to cover a good secondary-school edu-

cation, including good preparation for college, in four years is true; but the remedy is to be found in remodeling our whole programme of studies, so that it will be possible for pupils who intend to go on to the high school, and perhaps to college, to begin the work now done in four years two years earlier, so that they may take four, five, or six years for it—a process now under way throughout the country. Second, the other reply is that we need not take any time on a school day. The work of the Bible school can be done on Saturday and Sunday.

It may be said, also, that punctuality and regularity of attendance cannot be secured at the proposed Bible school, and hence that the instruction would be ineffective. The reply is we have n't tried it, and I think this reply has much more force than it may seem to have. If we had good Bible schools, can any one doubt that a very large proportion of parents would coöperate with their churches in making the educational provision which they believe in, and which they pay for, really serve its purpose?

It may also be worth while to point out in passing that the parochial school is not a Bible school, nor is it intended to be. The mistake of the parochial school—for I think it is a mistake—is that for the sake of a peculiar form of religious instruc-

tion it segregates its pupils for all other instruction. Such segregation based on religious differences tends always to promote undesirable segregations for political and other purposes, as in Germany and in England. That this tendency has not been as yet equally marked in America is due in part to the good sense of Americans—both Catholic and Protestant—and in part to our established principle of the complete separation of church and state.

Bible schools, then, in connection with each denomination, and such schools only, could adequately meet the demand for religious education. It must be apparent that religion cannot be taught without teaching denominational religion. No teacher can teach well anything in which his own interest is lukewarm, and this is a vital truth so far as religious instruction is concerned. The adherent of a denominational religion has chosen his particular form of faith because it appeals to him; it responds to his needs, is his solace, inspiration, and guidance in his efforts to realize within himself a spiritual ideal. Divest that faith of those peculiarities which make it his faith and you have left what to him is only the form, not the substance of religion, merely a cold and lifeless semblance of what it should be.

Bible schools would cost money. But so does everything worth having. If the people really value

suitable and adequate religious education, they must, in my opinion, secure it in some such way as I have just indicated, and, of course, they must pay for it.

This discussion has, thus far, touched only incidentally one important aspect of religious education, namely, moral education. Inasmuch as the Christian religion involves a moral code, religious education involves moral education; and just as it is impossible for any child or youth in our public schools to escape an incidental education in the Christian religion, so it is happily impossible for him to escape an incidental education in Christian morals. And, as I have pointed out above, this education is none the less positive and effective because it is incidental. We must remember that the lessons — and again especially the lessons in history, literature, and art — repeatedly involve specific moral enlightenment and inculcate moral ideals; and, of course, all the discipline of the school, if it is wise, is a moral discipline.

While no such objections can be urged against moral instruction as against religious instruction, and while provision for moral instruction in public schools is, of course, no new thing, it has hitherto been less effective than it ought to be, chiefly because the teachers have lacked appropriate training.

I fancy also that this instruction has not developed as it should because of a supposed necessary connection between instruction in religion and moral instruction. And yet such connection is only apparent, not real.

The aims of such moral instruction as I conceive to be necessary and desirable in every school are:

To inculcate respect and a rational solicitude for the physical health and the physical welfare of the individual and the race as the foundation of progressive well-being and happiness.

To inculcate the idea of the "virtues of work," *i. e.* of the necessity of work and the blessings of steady employment as the indispensable means of ministering to the welfare and happiness of the individual and of the race.

To inculcate reverence and love for truth and goodness, and the love of beauty, whether of nature or art, and hatred of all vileness.

To cultivate the native instinct of sympathy until it becomes a controlling influence in conduct.

To instruction based on such aims no one can object. The education determined by them would make men brethren. It would tend to eliminate private and public misconduct; it would tend to the realization of that millennium on earth which has been so long delayed and is so ardently de-

sired. If, in addition to the education determined by them, religious education is deemed essential, it must be supplied by the church, not by the school. To render moral instruction effective — *i. e.* to develop moral power — it must be accompanied by a discipline that insists on the conformity of conduct to the moral insight developed and ideals inculcated; and this must be done by means of incentives and deterrents that, so far as possible, have a permanent value, *i. e.* that do not lose their influence as the child grows older.

The final result of all this should be moral insight, interest, and power, — the gradual substitution of self-control and self-direction for external restraint and guidance.

I cannot close this discussion without calling attention to what seems to me, after all, the most important evidence of the validity of the views I have endeavored to maintain. One hundred years ago religious instruction in the schools and colleges of this country was, as it had been from the beginning, universal; and in most institutions compulsory utilization of the provisions for religious instruction still prevailed. And yet the outcome of it all had been a disregard for religion, a prevalence of unbelief, and a low moral tone that, so far as the colleges are concerned, are almost incredible.

Speaking of this period, Rev. Daniel Dorchester, in his "Christianity in the United States," p. 324, says: "It was confidently asserted by some that in two generations Christianity would altogether disappear. Such was the skepticism that prevailed at the close of the last century and the beginning of the present (the nineteenth century). The growth of Christianity in this country since these vain predictions has been the most marvelous ever known in any land or any age." And in his interesting book, "The Churches and Educated Men," Rev. Edwin N. Hardy says, speaking of the period from 1795 to 1800, which he calls the "Period of Infidelity, or the Period of Rapid Declination": "On the one side, there is nothing to differentiate this period from that which preceded it (1770–1795). The same influences are at work, but as the storm-tossed waves sometimes seem to gather themselves for one supreme effort, and carry the débris farther inland, so the wave of infidelity rose higher in its destructive strength and influence in this period, and then suddenly and somewhat mysteriously disappeared. But the storm-cloud of skepticism shadowed the land for a score of years longer before its darkness and force were broken. From the viewpoint of external conditions, this is the darkest period in the religious annals of our American colleges.

From the viewpoint of the inner spiritual life of the students, I am inclined to think that it is in nowise so dark and depressing as the latter part of the period preceding." And he gives statistical and other facts to support his statements.

During the century that opened thus darkly for the perpetuation and dissemination of Christianity, the gain in the growth of religious development was, however, a steadily accelerated growth, though, of course, not without checks and temporary retrogressions. First calling attention to the fact that in his historical study he had found (p. 280) "that in every single instance the characteristic fluctuations of religious life in the colleges correspond with similar fluctuations among men outside, with this distinction, however, that the religious tone of the college is invariably a little higher," Mr. Hardy subsequently sums up the results of his investigations as follows (p. 290):—

"In the first period (1636–1770) undoubtedly there was a larger proportion of professing Christians than to-day (for reasons already explained); from 1775 to 1795 about twelve per cent.; from 1795 to 1800 the ratio sinks to one in twenty, or five per cent. of Christians in the total enrollment of the undergraduates. At the opening of the century the percentage suddenly rises to fifteen or more in

1808, sinking again to ten at the end of the decade. From 1810 to 1825 the ratio sinks still lower, to rise steadily to twenty-five at the end of the first quarter of a century. From this time on to 1850 there is a gradual and permanent gain till the percentage registers thirty-three. Eight years later more than forty per cent. of the students are Christians. Just before the war the percentage reaches forty-five, and then remains largely unchanged for a score of years. From 1885 to 1900 there has been a slow but sure gain, till more than one half of the American students are professing Christians. The indications for the first years of the new century are most encouraging."

Now, I contend that it is significant that the decline of religious faith and morality went on under compulsory religious instruction, and in an atmosphere saturated with ecclesiasticism in school and college; and that the growth of religious faith and morality is contemporaneous with the gradual emancipation of the school and the college from the incubus of compulsion in religion, and with the growth of the free secular public school. It is well known that the secularization of the public school and its phenomenal growth were effected during the nineteenth century, the latter particularly during the second half of the century. Religion, like

patriotism, thrives under freedom. The gains to religion sketched above have all taken place, I repeat, under a system of free public elementary schools, free public high schools, and free state universities, all without explicit or formal instruction in religion.

And what of morals? Is the public and private conscience also gaining in sensitiveness and force? I think it is. We are even now in the midst of a great moral awakening. The remorseless exposure, conviction, and punishment of men of whatever social grade, who have been false to a private or public trust or corrupt in office, are an indication that the moral sense of the American people is keen and effective. I am no prophet, but I believe that it will soon be popular to be an earnest and honest public official, and, at the same time, more profitable than to be a shirking, or self-seeking, or dishonest official. Meanwhile, the real brotherhood of man is being recognized in our slow but steady gain toward universal peace, in the winning fight of the intelligent and efficient laborer to obtain a just share of the fruits of his labor, and in the enormous gains in public philanthropies of every description. Men are feeling, or are made to feel, as never before, their duties to their fellow-men — the obligation and the privilege of doing good.

In this paper I have endeavored to maintain the truth of two propositions: —

(1) Formal or explicit instruction in religion in the public schools is undesirable, unnecessary, and, in most cases, legally impossible; and

(2) Religious education, including detailed instruction in the Bible, is the duty of the Church.

These propositions are not new; but in the contemporary transitional state of religious belief, and in view of the strong, increasing, and justifiable demand for instruction in the Bible, we need to remind ourselves often of their validity; lest, in spite of the lessons of history and of contemporary experience, we entertain unwise or even disastrous suggestions; and, failing to aid the contemporary promising, though as yet only incipient efforts of the Church, we invite dissension and disaster, and so defeat our own ends.

VIII

THE COUNTRY SCHOOLMASTER IN BAVARIA

THE COUNTRY SCHOOLMASTER IN BAVARIA[1]

In Bavaria, as in Prussia, permission to visit schools must be sought from the government. My experience in this matter was interesting and may be instructive to others — as it was to me.

On November 20, 1904, through the Consul-General of the United States at Munich, I applied to the Bavarian Minister of Education and Religion for permission to visit schools of all grades and kinds in Munich and vicinity.

In the course of a week my document was sent to the consul-general, accompanied by the notification that, henceforth, permission to foreigners to visit Bavarian schools could be granted only if the particular schools to be visited were designated in advance; general permission to visit schools could not, hereafter, be granted.

I had asked for a document that would secure admission to country schools as well as city schools, but, for reasons that I did not then understand, but which I came to discover later, the minister did not

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include a permit to rove about at will among rural schools.

I went accordingly to the headquarters of the provincial government in Munich and by rare good fortune encountered one of the most efficient and agreeable of the provincial school inspectors, Mr. Klaus Brixle, by whose good offices I secured within a few days a permit to visit country schools, and subsequently many other favors, as will presently appear. My new document read as follows: —

Provincial Government of Upper Bavaria,
Department of the Interior,

Your request of yesterday to inspect the buildings and equipment of the elementary schools and to observe the instruction therein, in the Province of Upper Bavaria, outside Munich, and to visit the private schools for girls in the said Province, is granted. Concerning this matter you will please consult Mr. Klaus Brixle, inspector of schools, whom you, as a spectator, are permitted to accompany on his official visits of inspection. Whatever notification of school authorities may be necessary will be attended to by the person named.

I was not long in arranging with Mr. Brixle to accompany him on one of his visits of inspection. All necessary arrangements having been made, Mon-

day, February 20, 1905, was fixed upon as the date for beginning a tour of inspection in a region not too remote, and yet a region in some of the schools of which the inspector had not been seen for from five to fifteen years.

Accordingly, at half-past five, on Sunday afternoon, February 19, Mr. Brixle and I set out together for R——.

When we reached R—— we proceeded at once to a delightful and unpretentious hotel only a few minutes' walk from the station, where, having established ourselves, Mr. Brixle unfolded his plans for the morrow. He himself was to leave the next morning by the 5.30 train; but he advised me to follow on a train leaving at 8.10 for a village called E——. At E——, which I would reach in half an hour, I would find a wagon waiting to take me to the village of A—— and its school — a half-hour's ride — where I would find him at work. We would return to R—— in the evening.

E—— lies near one end of a beautiful lake several miles in length and one or two miles in width, and is, like the lake itself, surrounded by wooded hills and cultivated, gently sloping fields. The road to A—— lay along the shore of the lake for a short distance, and then turned sharply away from it over a small watershed between two streams, to arrive

presently at a little valley a few hundred yards in width, traversed by a stream. On the banks of this stream lies the somewhat straggling village of A——, and in the heart of this village stands a substantial looking, plain white dwelling-house covered with stucco, bearing on one of the gable ends in old German characters the one word "Schule."

The house was, as is not uncommon, the schoolmaster's residence as well as the schoolhouse. It stands broadside toward the street, and its only entrance is at the labeled end, directly under the word "Schule," which I had observed as the carriage drew up. Before the door were half a dozen or more pairs of shoes of various sizes, which had been exchanged by the children, as I afterwards learned, for dry felt shoes to be worn indoors. Evidently most of the children had neglected or forgotten to change their footwear, because, as will presently appear, eight pairs of shoes represented only a fraction of the number of children's feet within the building.

Two or three steps led into a broad hall paved with what W. D. Howells, when speaking of the floors of Venice houses, fittingly calls petrified plum pudding. The hall led straight through the building, and on each side were doors opening into rooms belonging to the schoolmaster's dwelling.

One of the rooms on this floor was used for the meetings of a board of town or village officials, remotely analogous to our boards of selectmen in New England; and hence served also as the office of the town or village clerk (who is almost invariably the school-teacher), and as the depository of the town or village records. Half-way down the hall, also, was the stairway leading to the second floor, or school floor.

The school floor comprised a large schoolroom and two smaller rooms that could also be used for school purposes, together with the closets for boys and for girls, placed, as is quite common in rural school buildings, side by side. All these rooms, and indeed the entire house, were scrupulously clean. This cleanliness, I afterwards learned, — or the reverse, when the reverse prevails, — is traceable directly to the schoolmaster's wife, who is responsible for the care and general appearance of the building. When she can afford to have a servant, which is not often, she merely superintends the cleaning of the building. Generally she does all the work of sweeping and scrubbing herself.

It was just past nine o'clock when I knocked at the schoolroom door, and, lifting the latch, entered the first rural school in Germany I had ever seen. The first thing that impressed me was, as always

in German schoolrooms, the abominable ventilation. No words are strong enough to condemn the outrageous disregard for properly ventilated schoolrooms that are almost universal in Germany, whether north or south, whether in elementary school, secondary school, or university. The air is not merely unpleasant, it is positively foul. I have often found the odor of the dead air in the schoolrooms at nine o'clock in the morning so offensive as to be nauseating; so disgusting that a strong effort of the will was required to keep me from turning back when already in the room. If that is the condition of the air in the schoolrooms at nine o'clock in the morning, imagination can scarcely compass the state of things later in the day. The amazing thing is that pupils and teachers and students and professors work for hours in such vitiated air without apparent discomfort. In the cities, the generally pale and occasionally flushed appearance of the boys and the lassitude of the girls which the visitor is sure to notice, must be due in part, at least, to the foul air they breathe for so many hours each day.

But to return to the A—— school. The schoolroom I had entered was about the size of an ordinary grammar-school room in the United States. It was well lighted by windows at the left of and behind

the pupils. There were two rows of benches with a broad isle down the middle, and a very narrow passageway between the benches and the walls on each side. On the right of the middle aisle the benches seated three or four children each; on the left, each bench seated four or five children. These benches had once been painted black, but the paint was worn off in many places, and, although they did not look dilapidated, they bore the marks of long and continuous use. The ubiquitous jackknife had also been used on them here and there, just as in our schoolrooms at home. The benches and accompanying desks were of three sizes (heights). The desks and seats were so made that the cover of the desk had to be raised every time a pupil stood in his place; and on going to or leaving his place in his class a pupil either had to get up on the bench and walk behind his comrades, or they all had to get out and allow him to pass them. A large porcelain stove stood near the door, and in front of the stove a basket full of peat. The room was well heated, and I noticed that the little fireman, or, rather, little firewoman, whose business it was to see to the fire that day, attended to her duty not only with success, but with an evident pride and a due sense of responsibility. At one end of the room was a raised platform on which stood the master's

desk, and on each side of the desk two large easels, each bearing a blackboard about four feet by five in area. Behind the master's desk, on the wall, hung a large and hideous crucifix — hideous because of the emaciated and crudely executed figure of the suffering Christ thereon. This particular piece of pious wall decoration is obtrusively common in Bavaria. Indeed, I don't remember a classroom in any school visited — except the University — in which it is not a conspicuous object. On the wall opposite the crucifix, between the windows, hung a portrait of Luitpold, Prince Regent of Bavaria, beloved and respected throughout the realm by people of all classes. On the remaining wall hung a few wall-maps, and charts for natural-history lessons; and in a small cupboard, in one corner, was a collection of notebooks, pupils' written exercises, and a few odds and ends in the way of teaching materials. There was no library.

When I entered the room Mr. Brixle, the state inspector, was seated at the teacher's desk, while the teacher was teaching a class. There were sixty-eight pupils in the room. When I expressed some surprise that there was only one teacher for so many pupils, I learned that the maximum number of pupils per teacher is, by law, eighty. So I held my peace and looked and listened. The teacher was

a man about thirty-five years of age, tolerably neat in person and dress, with a kindly face and moderately alert manner. The pupils were of all ages, from six to thirteen and fourteen; were plainly, but, on the whole, warmly dressed; looked, for the most part, well nourished, and seemed happy and contented; they were peasant and village children, with rather more intelligence and vivacity than are commonly found among the children of rural Germany. Their persons and clothes were not overneat — indeed, real cleanliness is too much to expect of the majority of their class. The order in the room was excellent, and remained so during the entire day.

My purpose in visiting this and other country schools was, of course, quite as much to inspect the inspector as to inspect the schools. Accordingly, for most of this first day, I fixed my attention primarily on Mr. Brixle. I had not been in the room long before I found that his presence, though naturally somewhat disconcerting to the teacher, was very welcome to the pupils. His manner was pleasant, occasionally even jocose, but without any approach to levity, in dealing with them *en masse* or by classes. When he questioned individual pupils his questions were searching but entirely fair. His knowledge of what could justly be expected was

usually perfect, or, if he had the slightest doubt about the fairness of the question, he asked the teacher to set him right before holding the pupil to strict account.

His mode of procedure was threefold: First, to allow the teacher to proceed with a class exercise until the teacher's method and degree of success were apparent; then he would ask him to stop and would deal with the class himself, his questions aiming to ascertain both what the pupils knew about the subject under consideration, and their power to apply their past acquisitions to new problems and new conditions suggested by himself. Second, he would set written exercises — problems in arithmetic, a short composition on a topic chosen from a reading-lesson and previously considered by the teacher or by himself, a dictation exercise in language to test writing and spelling; or an exercise in grammar based on a passage in their reading-books; and so on. In this way the entire school was passed in review. Although not all the pupils were tested by the inspector in all the subjects, yet every pupil was tested in two or more subjects. (It should be said that a system of rough grading prevails in these "one-class" schools. The first year pupils are called the "preparatory class," the second and third school-year constitute the first or lower class; the

pupils of the fourth and fifth school-year consitute the second or middle class; and the pupils of the sixth and seventh school-year constitute the third, or upper class. School attendance on the day schools is compulsory, in Bavaria, for elementary-school children from six to thirteen years of age, and longer if they have not completed the seven grades of the elementary school. Attendance on a continuation school is compulsory for three years more.) Third, finally, when he was not satisfied with the teacher's work he would ask him to stop, and, without comment, would continue the exercise in his own way. This he was able to do without unfavorably affecting the teacher's standing with the pupils, because he frequently said to them throughout the day when he wished to know what the pupils had actually done in a given subject, and what they really knew about it, "Now, I want to know just what you have had; of course, your teacher could tell me that very easily, but I would rather hear it from you"; and this was said in such a way as to make them feel that they themselves were under examination — not the teacher.

Two illustrations of the inspector's mode of setting the teacher right will serve to show his method, and also his helpfulness. The upper class had been tested in oral reading — a selection which they had

not read before. They were first asked to give orally the substance of what had been read, just after reading it; then the inspector asked the teacher to prepare the class to write an essay based on the story. The story described a rich man who lived in Amsterdam, who spent his days in idleness, who smoked and drank a good deal, lounged about all day, taking no exercise; and who complained of poor health, saying that he had no appetite; he could not sleep; and he grumbled at his physician, who could not cure him. Why, said he, am I a rich man if I cannot find a physician who, for high fees, can cure me of my ills? At last he applied to a celebrated physician in a distant city who had made many wonderful cures. This physician replied that he could cure him, but said that in order to effect a cure his patient must come to see him. The patient must, however, come on foot, must eat only one hearty meal a day, drink and smoke very little, and so on. The man was, of course, cured, and expressed his gratitude by promising to follow the physician's advice in the future, and by sending him on every New Year's Day a present of twenty gold pieces.

This story the teacher began to discuss with his pupils, working out an outline of what they were to write, beginning with the usual "introduction,"

and finishing, in this case, with the moral lesson the story was designed to inculcate.

Just before the pupils began to write the proposed composition, the inspector said, "There, Herr Lehrer, thank you. I see how you do it. But this time I want the children to do it this way." Then turning to the class he said, "I want each of you to imagine you are the rich man of Amsterdam who has been cured by the celebrated physician, and you are to write him such a letter as the rich man sent him. Now, what would you put into this letter?" Questions and suggestions gradually elicited from the pupils the main points the letter should cover — the place, Amsterdam; the date, January first; satisfaction with the cure effected; the promise to abide by his advice in future; and the intention to send him as a token of esteem a yearly present, of which the accompanying present was the first instalment. The class were told to write, and Mr. Brixle proceeded with other work.

The other instance of a suggestion to the teacher that his instruction should tend more to develop the power of self-expression, and the interest connected therewith, than mere repetition of ready-made ideas, was afforded by a natural-history lesson — or "object lesson" — on "the cat," which the teacher was asked to give to a younger class — the middle class.

The teacher began his exercise by saying that probably all the pupils had often seen cats, and that many of them had pet cats at home. To this the pupils assented. The teacher then proceeded to extract a description of the cat from his pupils, beginning with the head, and going on to the other parts of the creature. Presently Mr. Brixle politely interrupted the lesson, as before, and took charge of the class himself. He asked the children what cats particularly liked to do. "To catch mice and birds." "Have you ever seen a cat catch a mouse?" "Yes." "How does she do it?" etc. Then followed an interested and graphic portrayal by the children and the inspector of how the cat watches a mouse-hole, how she crouches to spring on her victim, what she does with it after it is caught, etc.

These illustrations serve, as I have already said, to show how the inspector contrived to make himself liked by the pupils, and suggestive to the teacher, without in any way diminishing the prestige of the latter in the eyes of his pupils.

The inspection covered the entire programme of studies, except religion, — namely, reading, writing, arithmetic, geography and history, nature-study, singing, and (for the girls) knitting and sewing. The teacher is required to keep a log-book which contains a record of every topic (not necessarily of

every lesson) taken up in every subject; and the range of inspection in each study is, of course, determined by this record. Naturally, also, the record serves to show to what extent the teacher has covered the required work.

At eleven o'clock the pupils laid aside their work. At a given signal they rose and repeated in concert several short prayers, making the sign of the cross and standing with hands placed together and eyes raised, in a devotional attitude. Every session of the school is opened and closed in this way. The pupils thus repeat certain religious, or rather ecclesiastical formulæ, four times a day. There was, naturally, abundant evidence that this repetition of prayers was merely a mechanical performance, in spite of the devotional attitudes the pupils were required to assume. The danger in all such exercises is, of course, that, on account of the emphasis laid by the Roman Catholic Church on these formal prayers, attendance on school mass (of which something more later on), and on the whole machinery of ecclesiastical influences, most of the pupils carry with them into life the habit of regarding the observance of prescribed ecclesiastical ceremonials as the index of a religious life — even when, as they are sure to learn later, a faithful attention to these ceremonials is no guaranty of

reverence, brotherly love, fair dealing, or of an upright life generally. However that may be, when the prayers had been said, the pupils were dismissed for the noon recess, which lasts until 12.30.

At half-past twelve we were back at the school, and the inspection went on in the manner which has been already described. As we passed through the hall on our way to the schoolroom, my attention was attracted by a large number of little baskets and bundles arranged in an orderly group on the floor not far from the schoolroom door. I wondered what they were, but soon thought no more about them, my attention being absorbed by the occurrences within the schoolroom.

One incident of the afternoon session must not remain unnoted. This was the visit of the local school inspector, who was, as is always the case in rural Bavaria, a Roman Catholic priest. He had been notified of our visit to "his" school, but was prevented by other duties, he said, from coming to the school in the morning. He was a tall, well-fed looking man, clothed in the usual black habit of his profession. He wore, however, an unusually long frock coat that reached within a few inches of the ground, and this accentuated his tall figure so that he seemed to tower above all our heads to the very ceiling — and even beyond!

I have here touched on one of the most serious questions which Bavaria, and indeed all Germany, has to deal with, namely, the question of freeing the public rural school from the incubus of ecclesiastical control. The question is of special importance in Roman Catholic countries, because of the well-known compact organization and the political ambitions of the Roman Catholic Church. In rural Bavaria, for example, I think it is fair to say that the church aims to maintain the false principle that the school is subordinate to the church, and not a coördinate educational force; and has, up to the present time, succeeded fairly well in embodying this principle in important aspects of practice, in spite of the fact that the school is legally a state institution; and in spite also of the strong, but for obvious reasons not openly expressed, opposition of the great majority of teachers, and a large proportion of the lay public.

That the church really succeeds, in part, in making the school the handmaid of the church, in spite of law and against the professional opinion of most of the teachers — Catholic as well as non-Catholic — is obvious to any one who has looked into the situation. I have already mentioned the fact that the local school inspector in the country

is the parish priest. The parishes are grouped in districts — say ten or fifteen parishes to a district — and the chief or district inspector is also a priest. It is true that these priests do not frame the programme of studies and do not appoint the teachers; but their actual control over the teacher and his conduct of his school is great.

The local school inspector, under the direction of the district inspector, conducts "ordinary inspections" — Mr. Brixle's inspection, *i. e.* the inspection by a circuit (state) inspector, is called an "extraordinary inspection" — and reports of ordinary inspections are transmitted twice a year through the district inspector to the provincial government. Moreover, the services which the schoolmaster is obliged to render the church and the priests are very often an intolerable burden, as will appear presently.

The school closed at half-past two, with the pious formalities on which I have already commented. Immediately after the dismission, the mystery of the little baskets and bundles that I had noticed in the hall was explained. The pupils had no sooner left the room than each little maid, from the toddlers of the A-B-C class to the temporarily dignified maids of thirteen or fourteen, returned to the schoolroom, each bearing a little

basket or bundle, which turned out to be her "work" — knitting in the case of the little ones, and sewing in the case of the larger girls. Marshaling this little company of girls came the schoolmaster's wife, under whose direction this handwork for girls is carried on. The knitting was stocking-knitting; the sewing covered a large range of work, from mending — which was especially commended by Mr. Brixle — to the embroidering of altar cloths and stoles. It was interesting to see how largely this pietistic embroidery was chosen by the older girls. Their natural feminine desire to make something pretty, after they had learned how to do ordinary sewing, was turned into this one channel by the circumstances under which they were being reared. The inspection of this feminine handiwork did not last long, and soon the children were dismissed.

After school I knew there was to be a conference on the events of the day with the schoolmaster, and so I proposed to withdraw; but the inspector having invited me with evident sincerity to remain, I was glad to stay. The priest — the local school inspector — naturally remained by virtue of his office, and no doubt, also, because he hoped to profit by the state inspector's technical comments and criticisms — as, indeed, he might.

The conference itself impressed me as kindly, candid, and thorough, and certain to be helpful to the teacher, if he were at all receptive and plastic, so far as Mr. Brixle's comments and criticisms were concerned. He began by reading to the teacher the brief commendatory general statement which he had written on the occasion of his last visit to this school five years before, and added that he was happy to be able, on the whole, to express the same favorable opinion as to the teacher's industry, spirit, and general success. Then, remarking that with praise alone growth could not be wisely promoted, he proceeded to a detailed analysis of the day's work, pointing out errors of judgment, or of method, on the part of the teacher, and especially appealing by the manner of his criticism to the teacher's waning ambition. There was, Mr. Brixle found, no evidence of growth, and the level of attainment was barely up to what he had found on his last visit. The teacher possessed no new books, had read little if any, and much of his teaching lacked the vitalizing effect of graphic portrayal, or of concrete illustration; and so on. On some of the matters of detail the teacher defended himself, but on the whole he seemed to feel the justice and the force of the inspector's criticisms. It was especially interesting to note the combination of adverse comment

and helpful suggestion which characterized Mr. Brixle's method throughout the entire conference. Here was an admirable illustration of the professional expert in elementary education, whose work it was a rare pleasure to follow. The field of elementary education in Germany has many such workers. It is to be hoped that before long the people will insist that not only the state inspectors, but the local inspectors shall be similarly disinterested and equally well trained educational experts.

My own impressions of the schoolmaster's work agreed closely with the inspector's. Not being accustomed to seeing such successful work by a teacher with such a large number of children of all stages of advancement, from the first to the seventh grade inclusive, I was naturally impressed more by the teacher's skill than by his shortcomings — although these last had not escaped me. The man had been working in this school for more than ten years against tremendous odds. The nature of these odds must now be considered a little more in detail. The large number of pupils has already been mentioned. But I have as yet said nothing of the burdensome and, to some extent, even humiliating collateral work which the rural schoolmaster has to carry outside his school work altogether — work which he does, in part, more or less willingly be-

cause of the small increase to his income which it brings with it; and in part more or less unwillingly because it is expected of him with very little compensation, and entails a service of a more or less menial sort, or at least of a sort that tends to place him at a disadvantage in respect to the superior members of the little community of which he forms a part.

The first class of duties comprises what may be called the duties of town or village clerk (*Gemeinde Schreiber*) and organist in the parish church. The headquarters of the town or village, which is at the same time the office of the town clerk, is always located either in the schoolhouse or in the schoolmaster's residence, when the schoolmaster does not live in the schoolhouse. These duties, though often burdensome, are often not unwelcome to the schoolmaster for the reasons I have already given. The other class of duties is connected with the church and consists largely of such work as a janitor of a church has to do. The schoolmaster, in many cases, in addition to his function as organist, very often has to sweep and dust the church, ring the church-bell, prepare the materials for mass, robe the priest, and so on. The janitor service herein included the schoolmaster naturally objects to, although he is afraid to say so, for obvious reasons.

Even the organist's work, the robing of the priest, and so on, may be an intolerable burden; the teacher may be required for these services, and usually is required for them, before school in the morning, very often, to say nothing of Sundays and holidays.

The attitude of the clergy on these collateral duties of the schoolmaster is, however, firm; and when we remember that priests are the local and the district school superintendents, it is tolerably clear that no changes in these conditions are to be expected in the near future. The schoolmaster at A——, as it happens, was town clerk and also church organist. He was fortunate in escaping other church duties, because the parish priest happened to have a young assistant.

With their natural solicitude for the welfare of the little souls committed to their care, the priests often celebrate a school mass — and on such occasions it is the schoolmaster's duty to see that the children attend and conduct themselves properly. This duty the A—— schoolmaster has to discharge, of course. When it is remembered that the school begins at eight o'clock in the morning, and that the school mass is celebrated before school, in the church, which is usually some distance from the schoolhouse, the significance of this duty for the schoolmaster becomes more apparent.

In this catalogue of the odds against which the schoolmaster has to contend, mention must be made briefly of his social and professional environment. The opportunities of association with people of some degree of cultivation are, for the most part, absent. The people are distinctly of the peasant class, although not all of them are actually farmers. They read almost nothing, and although many of them have abundant common sense in the management of their affairs, they have no intellectual interests whatever. To associate with them on terms of social equality is impossible, unless the schoolmaster lowers himself to their grade. His only really accessible social equals are the priests; and, as their interests are so greatly different from his, association with them is usually neither mutually agreeable nor satisfactory.

Is it any wonder that many of these country schoolmasters, immersed in arduous daily tasks, burdened with heavy and often exasperating collateral responsibilities, and so largely cut off from association with their intellectual and social equals and superiors, should stop growing, settle down into the jog-trot of a more or less successful routine, and gradually cease to have any interests save those forced on them by necessity? It seems to me really remarkable that country schoolmasters should es-

cape this fate at all. It will therefore be understood that I was disposed to view our A—— schoolmaster, with his tidy schoolhouse, his busy and happy school, his pleasant, if somewhat stiff and slightly jaded manner, with more charity than Mr. Brixle, whose business it is, of course, to do all he can to rescue the schoolmaster from falling a prey to professional lethargy and social impossibility.

The inspector's conference with the schoolmaster lasted about two hours. When we left him I wondered whether, if when he returns in another five years for another inspection, he will find that the schoolmaster had lost a good share of the freshness and plasticity that he still possessed on the occasion of our visit. The chances seemed to me, at least, even that he would.

The day had been instructive and extremely interesting to me. I had seen a rather good German rural school and schoolmaster, under moderately favorable conditions; and I had seen how the state endeavors to maintain a high level of efficiency in its rural schools through the careful and enthusiastic work of its well-trained inspectors—and that is what I had come to see.

The next morning dawned gray and drizzly like the preceding. Before seven o'clock we were in a carriage *en route* to the village of A——g, rather

less than an hour's ride distant. A——g lies just beyond the borders of R——. It is inhabited largely by railway employees and by people employed in the salt-works, to which reference has been made. The village is, therefore, on the whole, far less prosperous than A——, and the people are, speaking generally, of a decidedly lower grade. The general quality of the population was, of course, seen in the school children, of whom I shall have to speak presently.

When the carriage drew up at the door of a dingy-looking two-story building, with a much-worn stone slab in front of the battered-looking door, I realized that the school-building we were about to enter was in marked contrast to the schoolhouses I had seen on the previous day. It was still a quarter of eight when we entered the building. A dirty hallway led part-way through the building. The lower floor was evidently used for the schoolmaster's dwelling. As we proceeded to the dilapidated and dirty stairway leading to the school floor, one of the doors leading from the hall was opened by a tired-looking, untidy woman, who proved to be the schoolmaster's wife. In reply to Mr. Brixle's questions, she said that her husband had not yet returned from church, where mass was being celebrated for the school. The schoolroom on the second

floor, like the entire building, was dingy, uncared for, and cheerless. There was a large number of very old and much-battered seats and benches, a number of tattered and dusty wall-maps, and the inevitable crucifix on the walls; and in one corner — the sole evidence of any attempt whatever to counteract the depressing effect of the general air of obtrusive discomfort that characterized the whole place — a number of dusty, neglected-looking geranium plants, flowerless, and almost without leaves. The teacher's desk was found, on examination, to be in great disorder; and the diminutive cupboard in the corner, which contained exercise-books and a few no longer usable scraps of teaching apparatus, was equally in confusion. On the teacher's desk were a few well-worn school-books, and — a rod. The room was fairly warm and, although it smelled stuffy, had probably been aired before the fire was lighted in the morning.

We had scarcely finished our survey of the premises, when the tramping of many feet announced the arrival of the children. In they came, a little host of shivering humanity. They were a much poorer-looking lot of children than those I had seen in A——. They had been to mass at half-past seven in a church without a fire. Many of them, on this raw February morning, were not warmly clad, most

of them wore neither mittens nor outer wraps; and the pale and wan little faces of very many suggested either insufficient or poor food, and premature subjection to hard work. It was a pathetic sight. But when we counted them and found they numbered one hundred and seventeen, and knew that there was only one teacher for this mass of badly nurtured unfortunates, I could not suppress indignation as well as pity for what I knew must be the lot of such children under such circumstances, and, although I had not yet seen him, in charge of such a teacher.

Presently the teacher appeared. He was a man of middle stature, probably under fifty years of age, untidy in person and dress, with a pale, unpleasant, and somewhat bloated face. His voice was husky, and his whole appearance suggested a man worn out before his time by overwork, and addicted to careless living. On inquiry, I found that my indignation concerning these untoward conditions was justified. The town had long delayed building a new building, because they kept hoping a portion of their town lying nearest R—— would be incorporated with that city; and, as they had grounds for entertaining such an expectation, the state authorities had not insisted, for what I suppose to be political reasons, that the town should comply with

the law restricting the number of children to eighty per teacher. How much longer the delay will continue, it is impossible to say. Here is a matter in which the influence of the local inspector and the district inspector would be all-powerful, if they would but exercise it; but, so far as I remember, these gentlemen have failed to use their opportunity.

As for the teacher, he is doomed at an early opportunity to retirement — happily for him — on a pension. That opportunity may be delayed, however, and meanwhile the children suffer. They are between the upper and the nether millstone that threaten to crush the young life out of them, and to bewilder and stupefy them for life. I was glad that we did not stay for an inspection of the schoolmaster's work. Shortly after eight o'clock we drove on to P——, which we reached in about half an hour.

This seems a good place to comment on certain peculiar customs of these country schools and of the children. In the first place, I was very unfavorably impressed by the loud, unnatural monotone which the children are taught to use, and which is well-nigh universal. The replies of the children are sometimes so loud, and, in the case of some of the girls, so shrill and piercing, that it is almost pain-

ful to stand near them. I commented on this curious perversion of training in natural and pleasant speech, but Mr. Brixle seemed to think it much better than the low and uncertain tones which he seemed to think the only other alternative. He had himself urged many of the A—— children to speak louder, "much louder," when it seemed to me that they were already speaking unpleasantly loud. I was therefore amused the next day when, in the girls' (private) high school in R——, he himself told one of the screaming girls not to shout so. The use of slates, with all that that means of unpleasant sights in the way of rags, and sponges, and untidy habits, is apparently universal in these country schools.

It was a pleasant custom to have the children duck their little heads in greeting if they passed me in the school building. In the city schools, I have been thus saluted by long files of children as they left the building or passed from one classroom to another. It was pleasant, too, in the country to have the little village folk run up to me, a stranger, thrust grimy little fists into my hand and murmur, "*Grüss Gott*" — the common greeting in Bavaria. On the other hand, I was amazed, and not a little shocked, to see the P—— schoolmaster — an admirable teacher and evidently an

excellent man — wearing very dirty linen, and taking snuff in the schoolroom, while teaching a class.

The schools described and the conditions under which they carry on their work are typical. When at the end of the week we returned to Munich, and I parted with great regret from my companion, I felt myself richer by many interesting and valuable experiences than when we had left that pleasant metropolis only a few days before.

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